

FIG. 1A

100

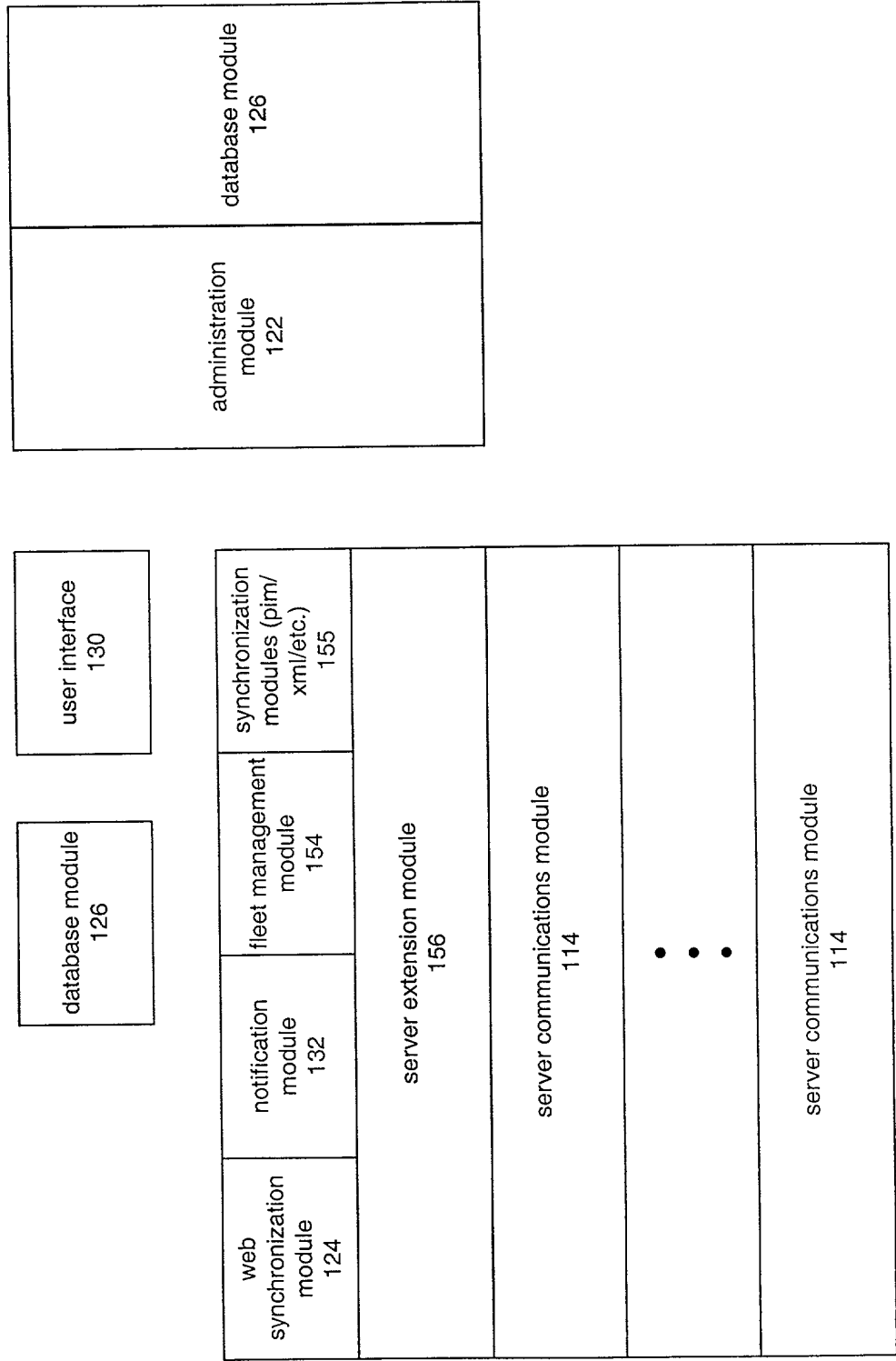


FIG. 1B

Data Processing Unit 103A

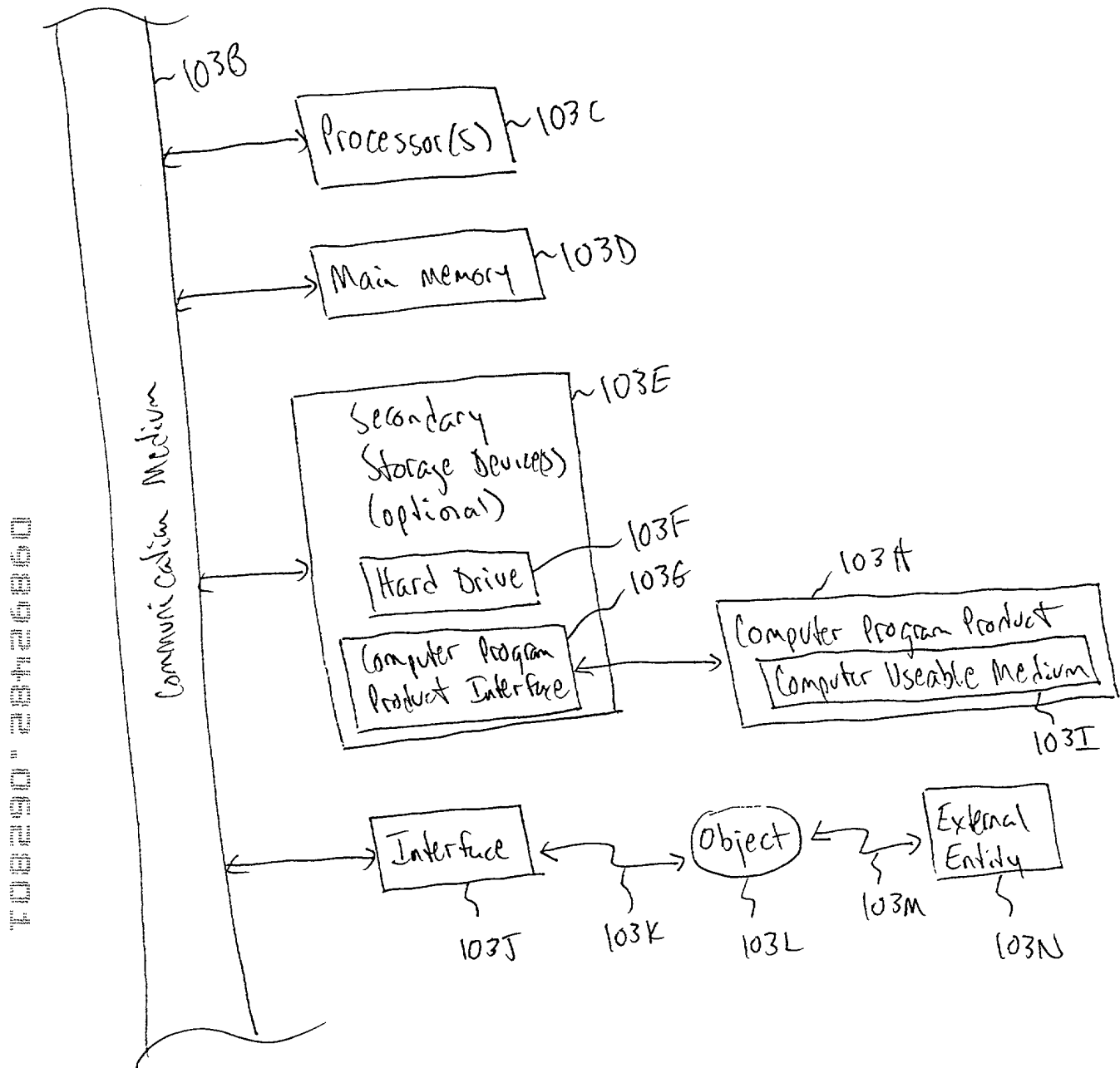


FIG. 1B1

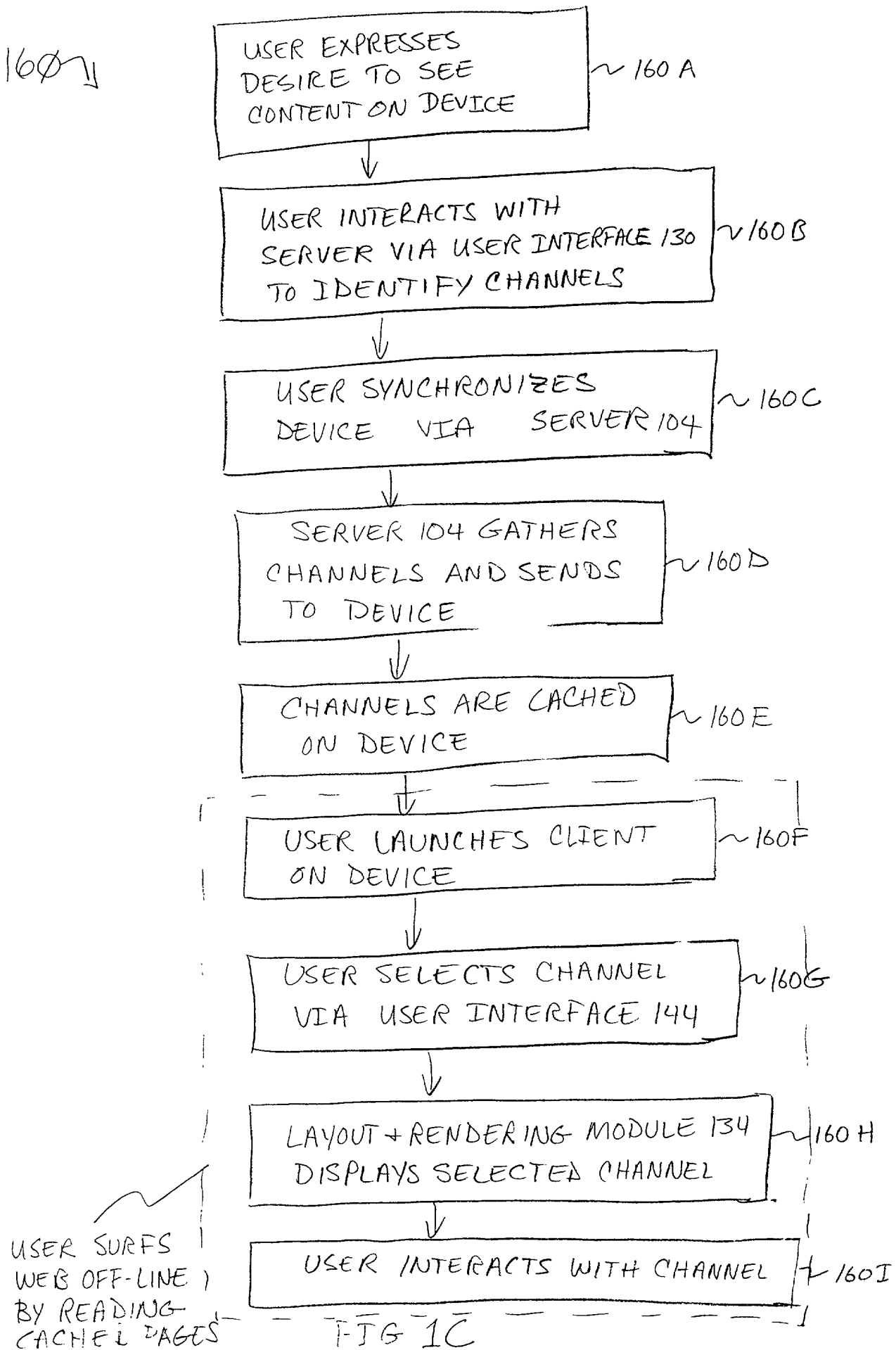


FIG. 1D

160 I
↓

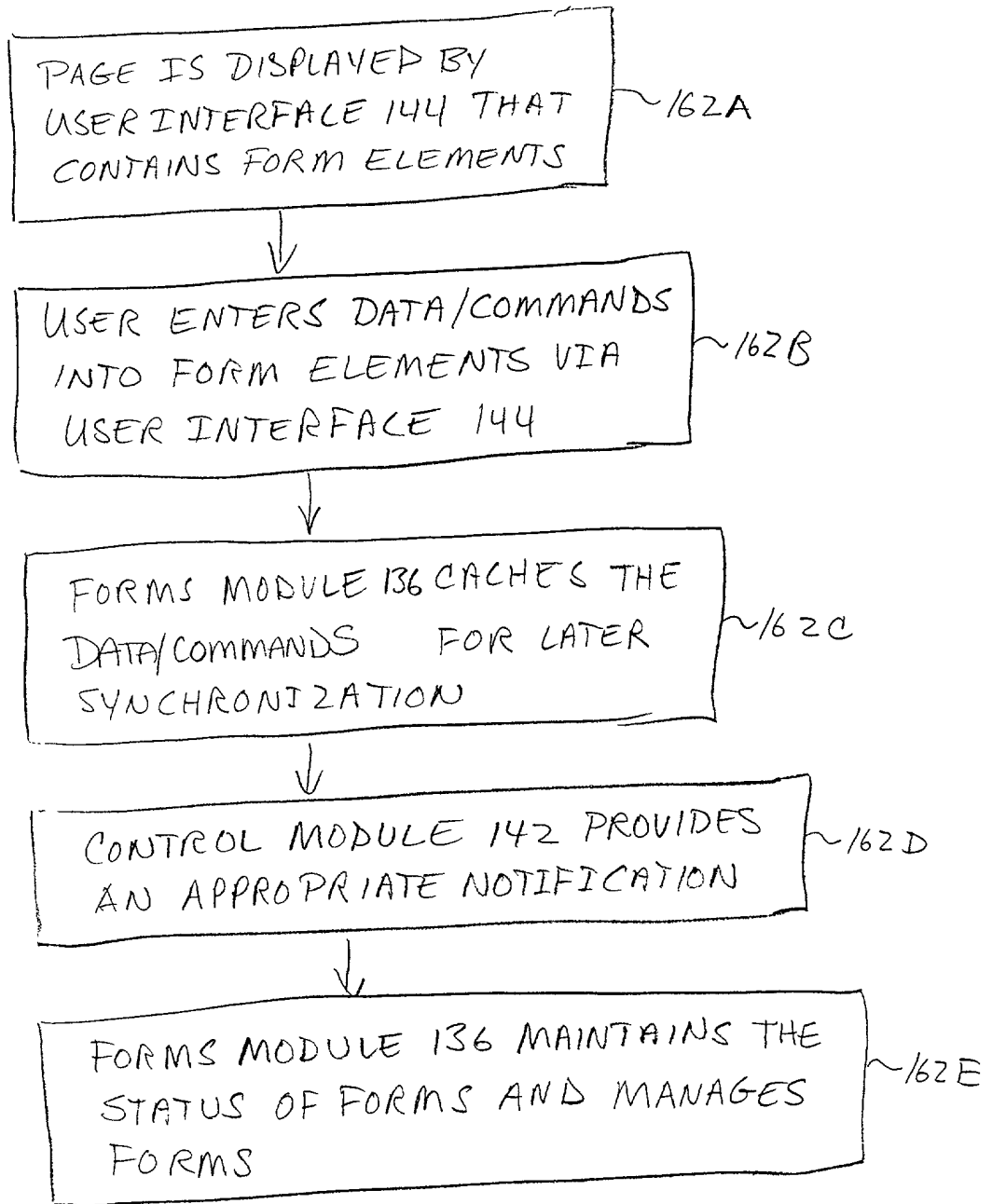


FIG. 1D

160 I'
↓

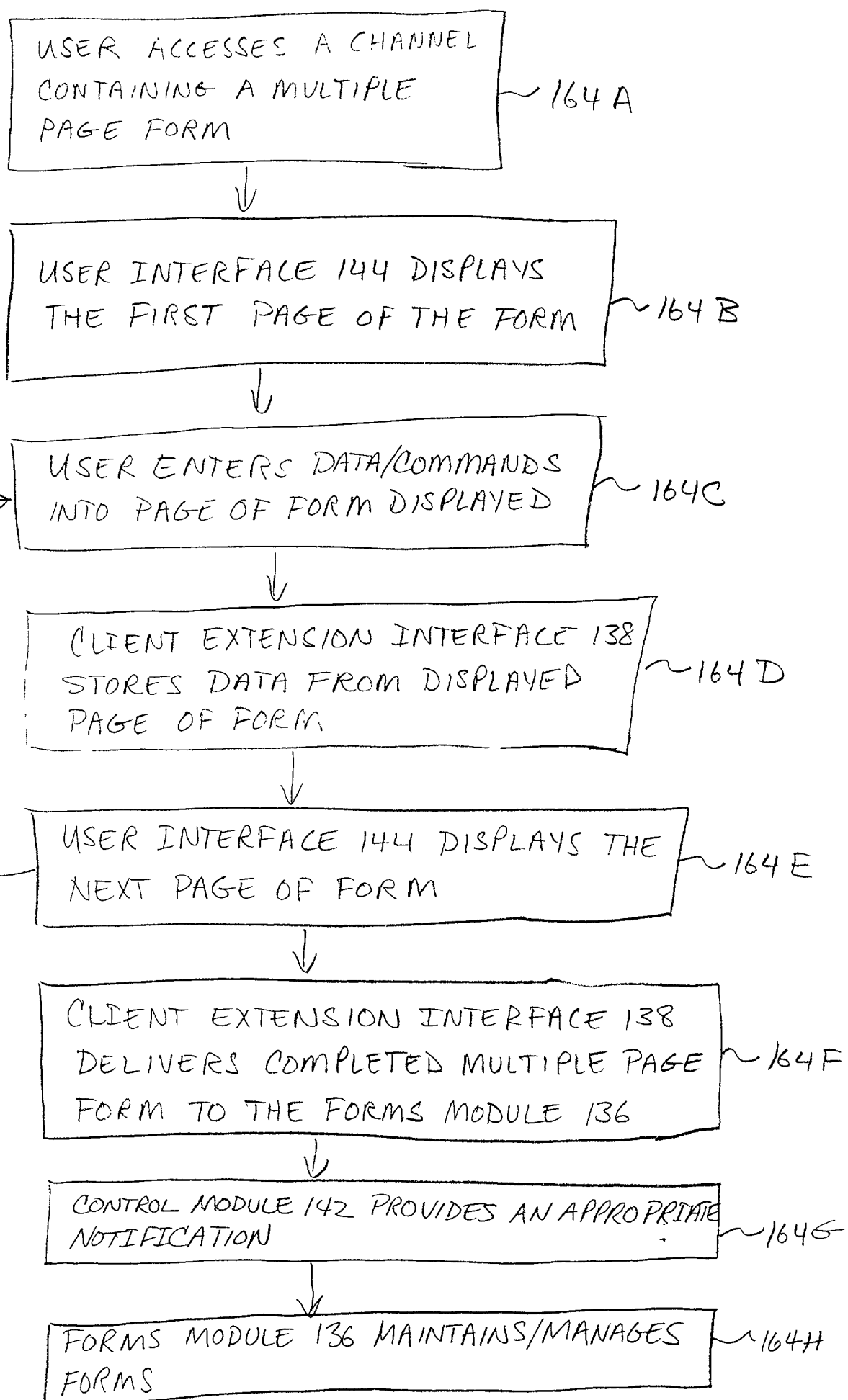


FIG. 1E

FIG. 1E

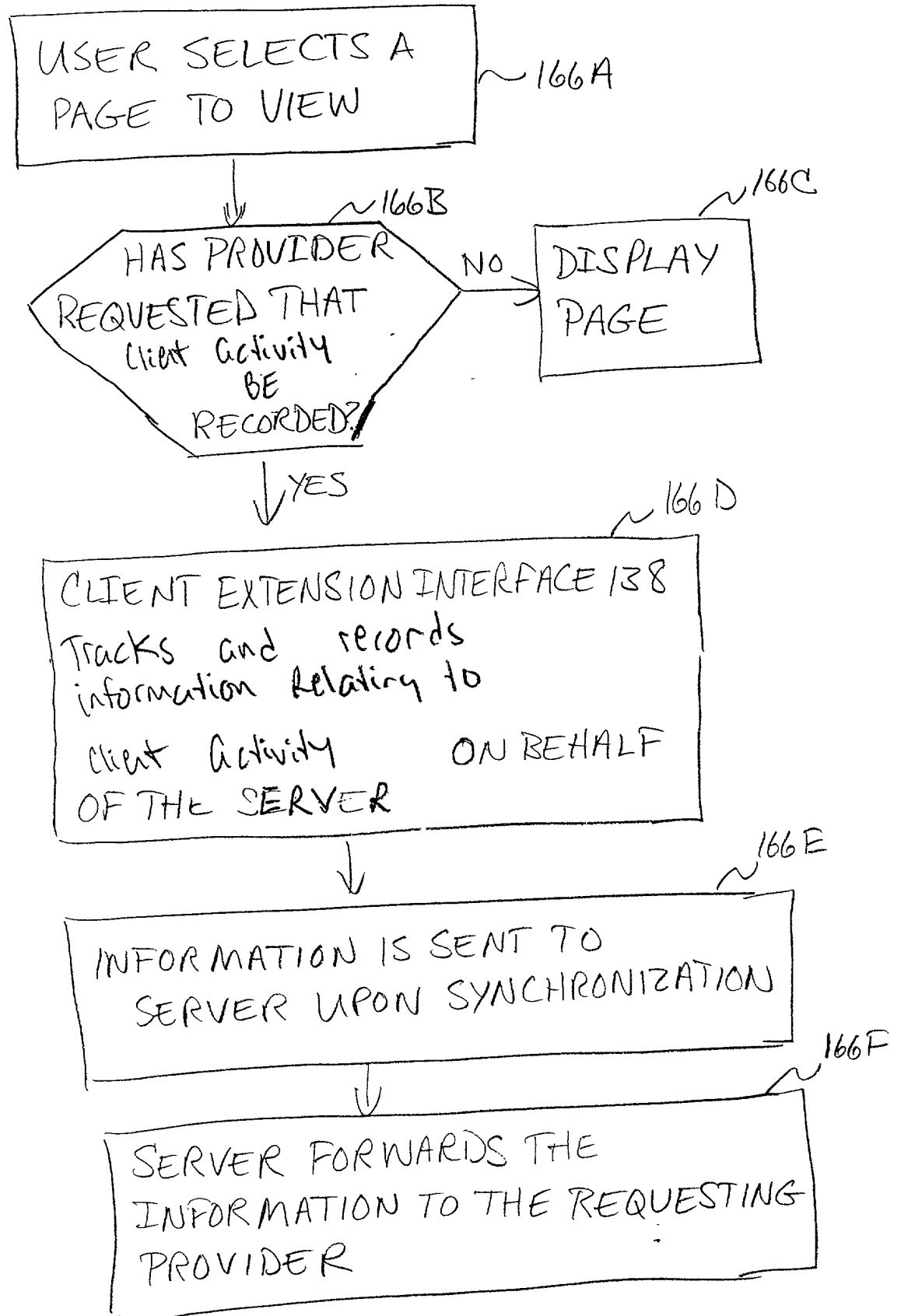


FIG. 1F1

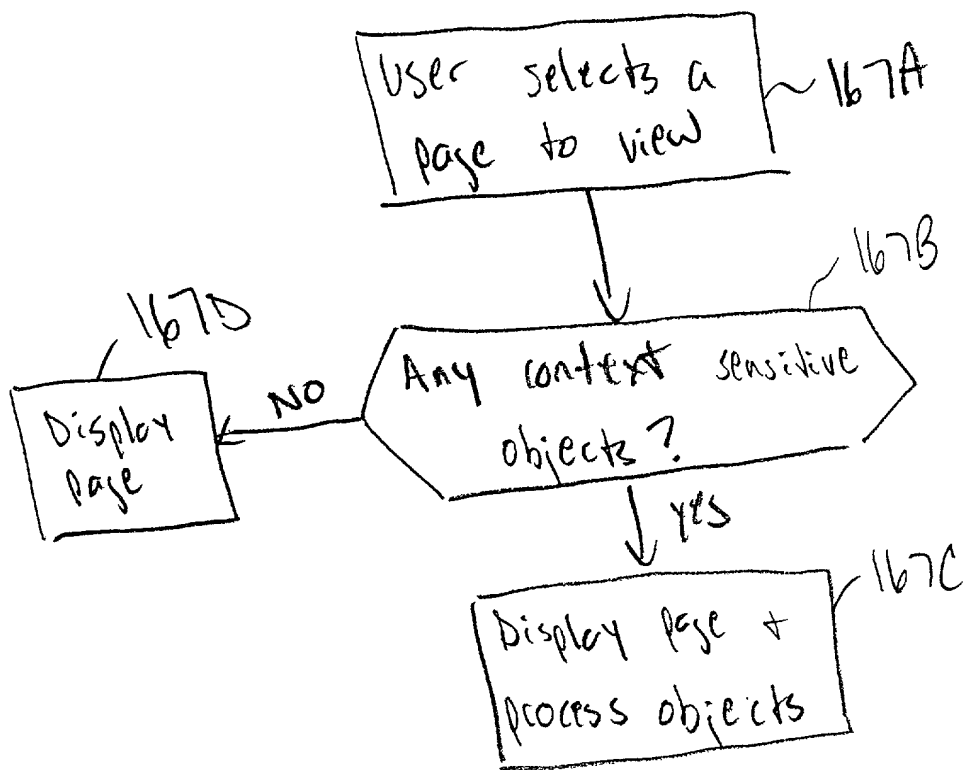


FIG. 1F2

1687

CLIENT INITIALIZES A SYNC
AND GIVES A SERVER A
NULL DATA MARKER

168A



168B

SERVER TELLS CLIENT WHICH
CLIENT DATABASES IT WISHES
TO TRACK AND SENDS DATAMARKER [c]

FIG. 1G

1707

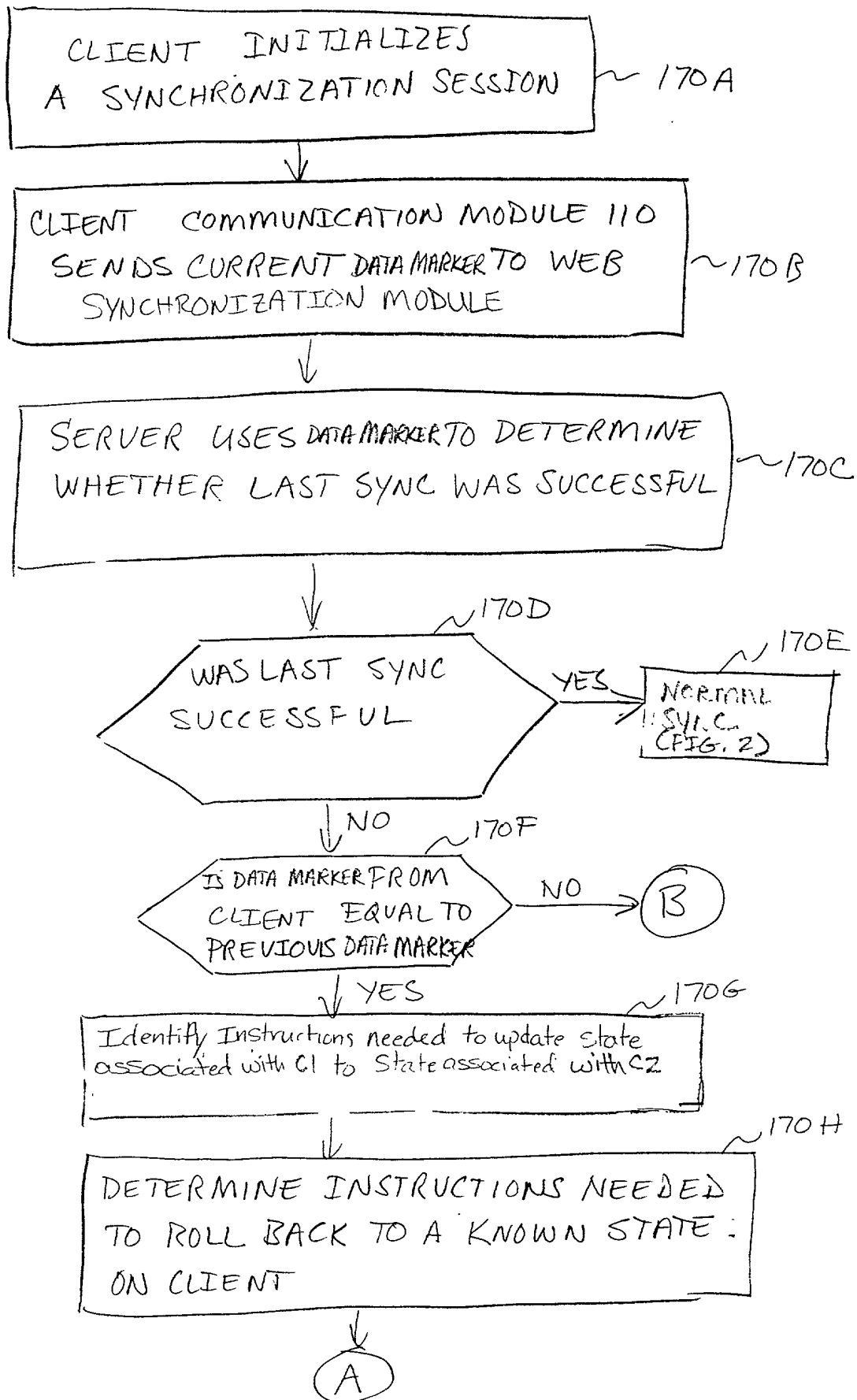


FIG. 1H1

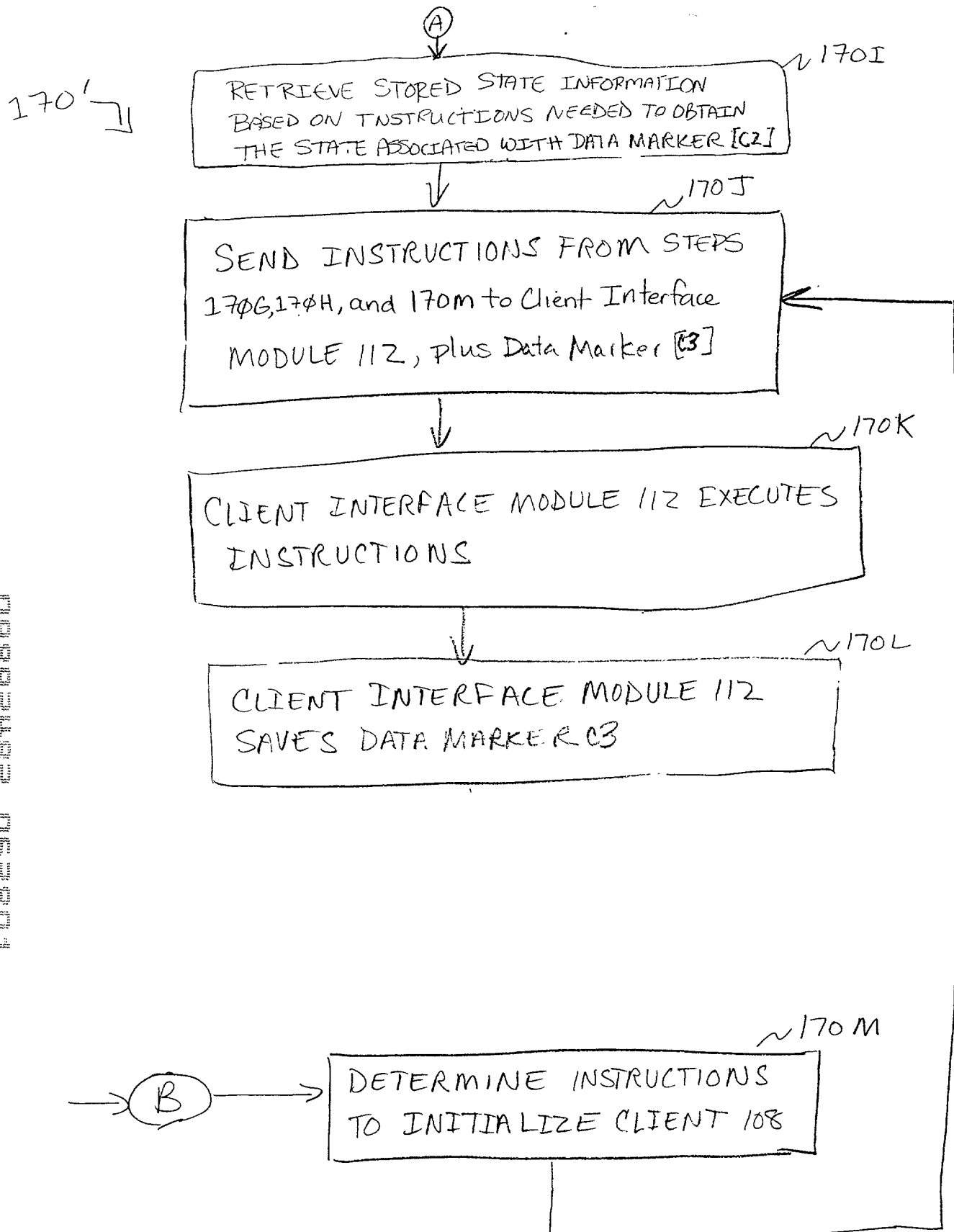


FIG. 1H2

170E
~

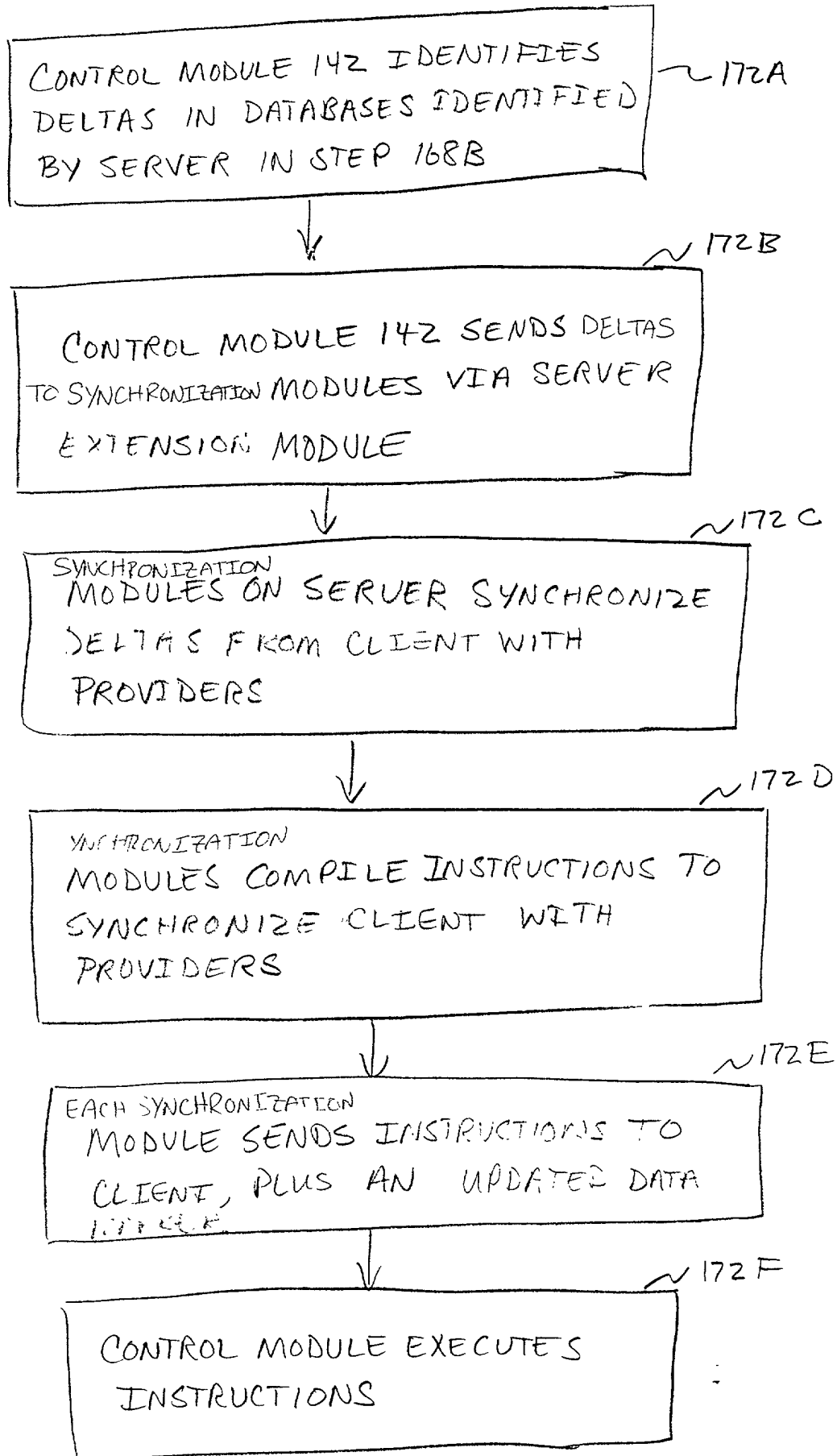


FIG. 111

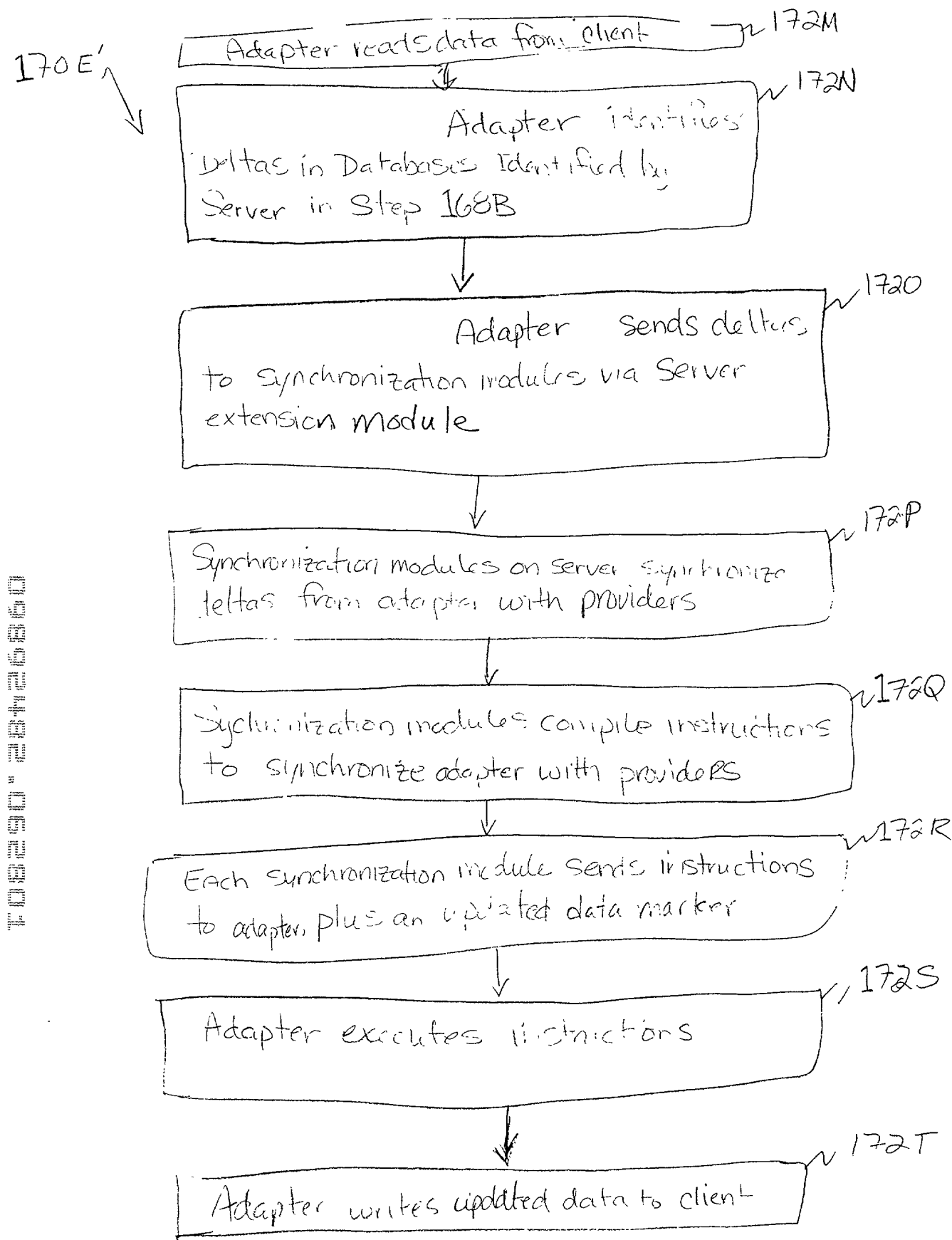


FIG. 1I2

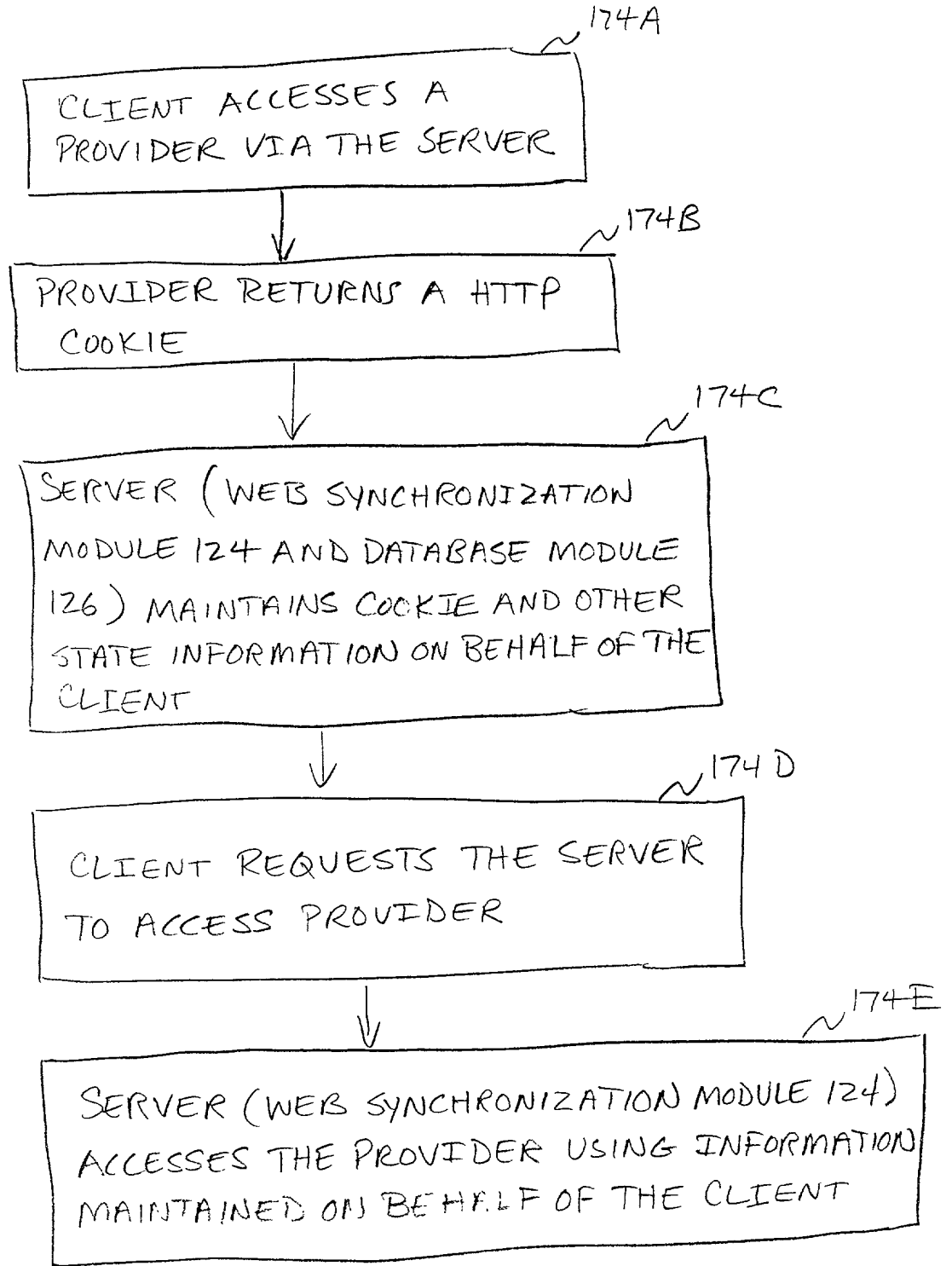


FIG. 1J

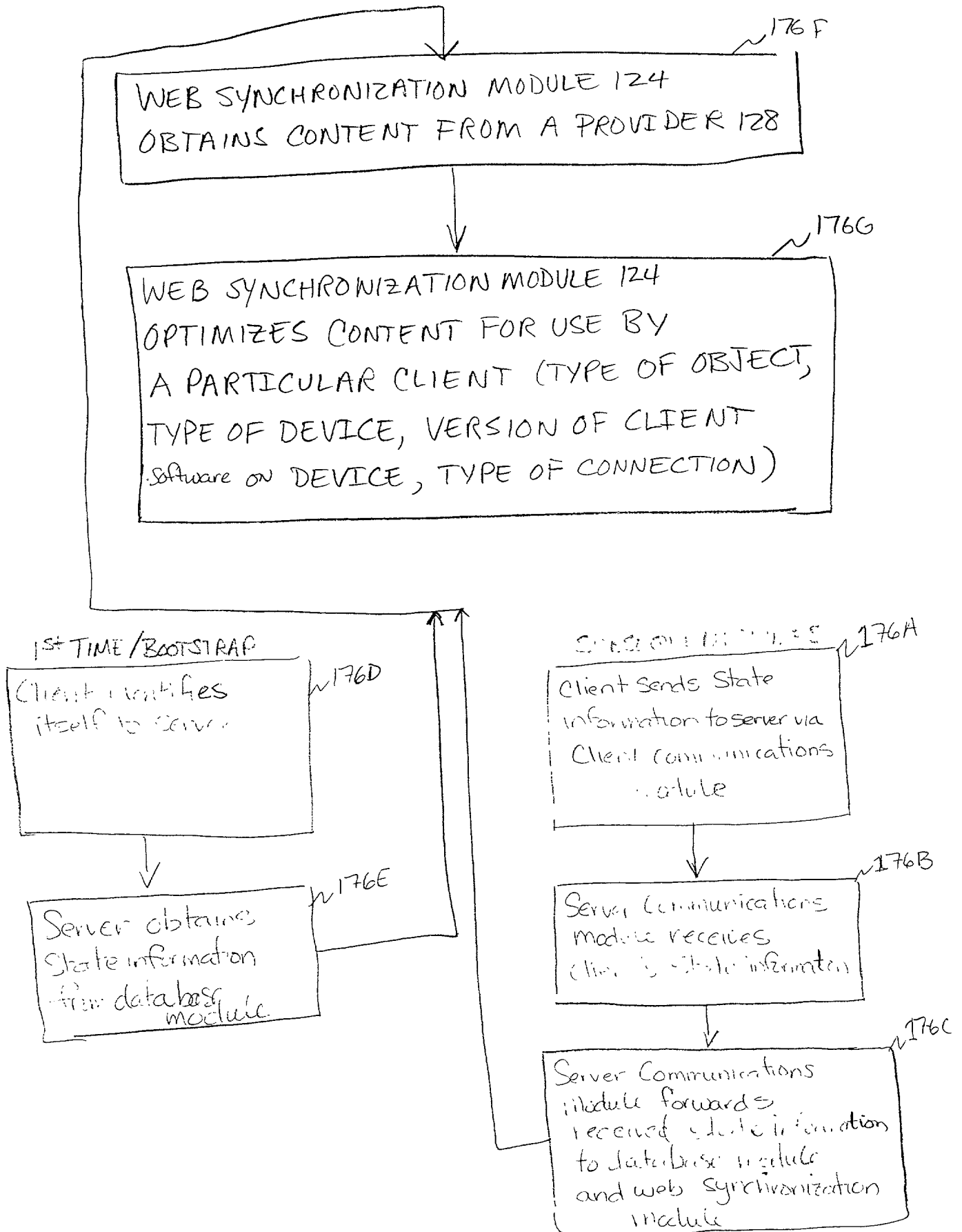
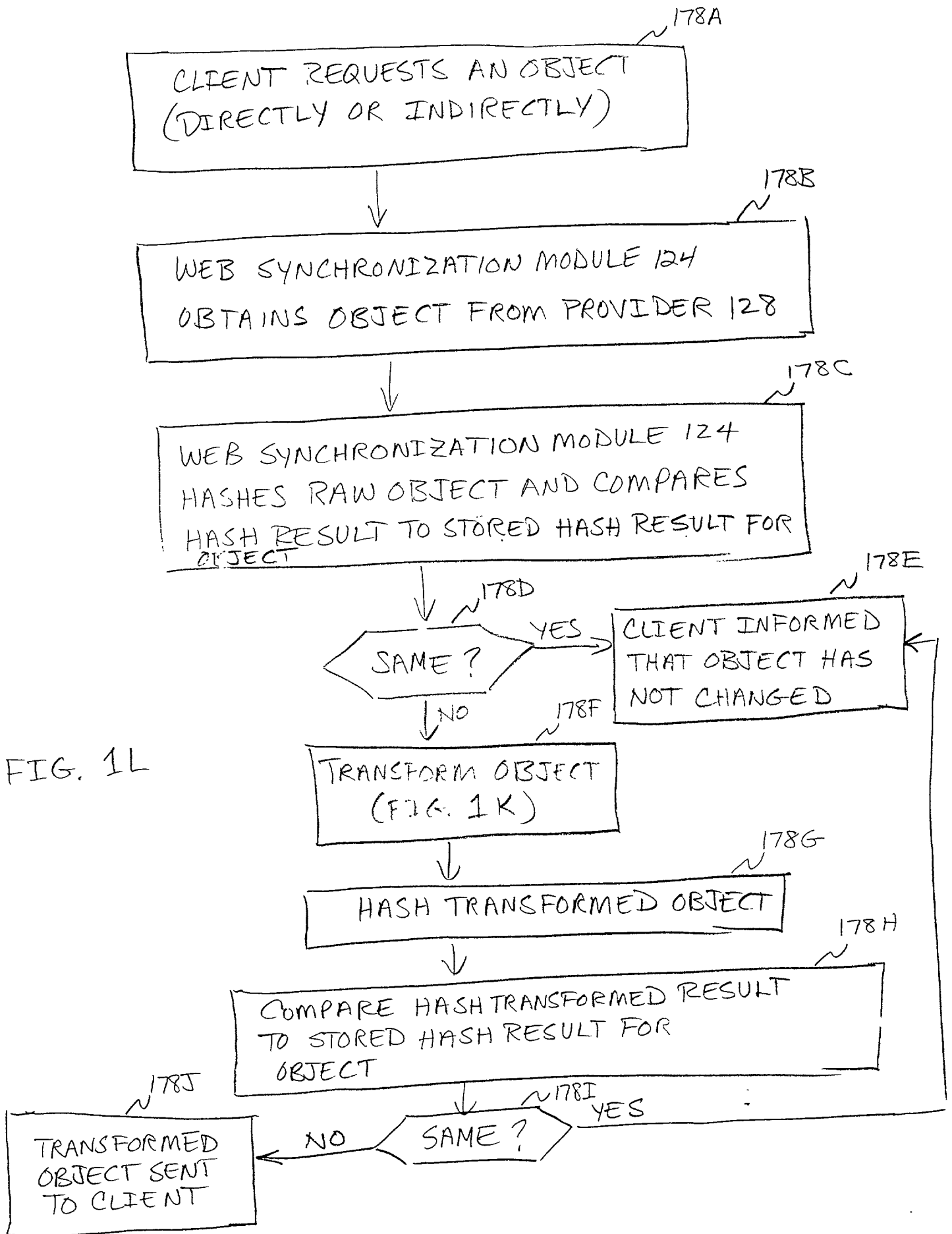
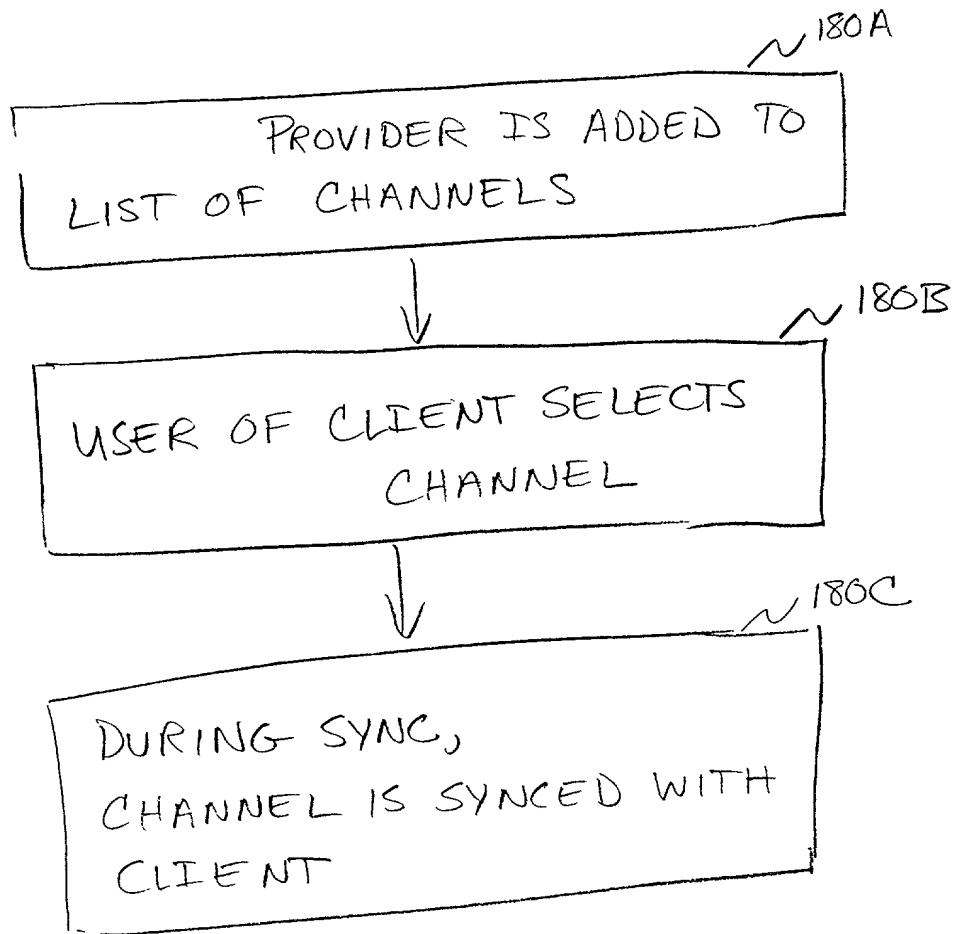


FIG. 1K





- MUSIC
- PHOTO ALBUMS
- BOOKS
- MOVIES
- ETC.

FIG. 1M

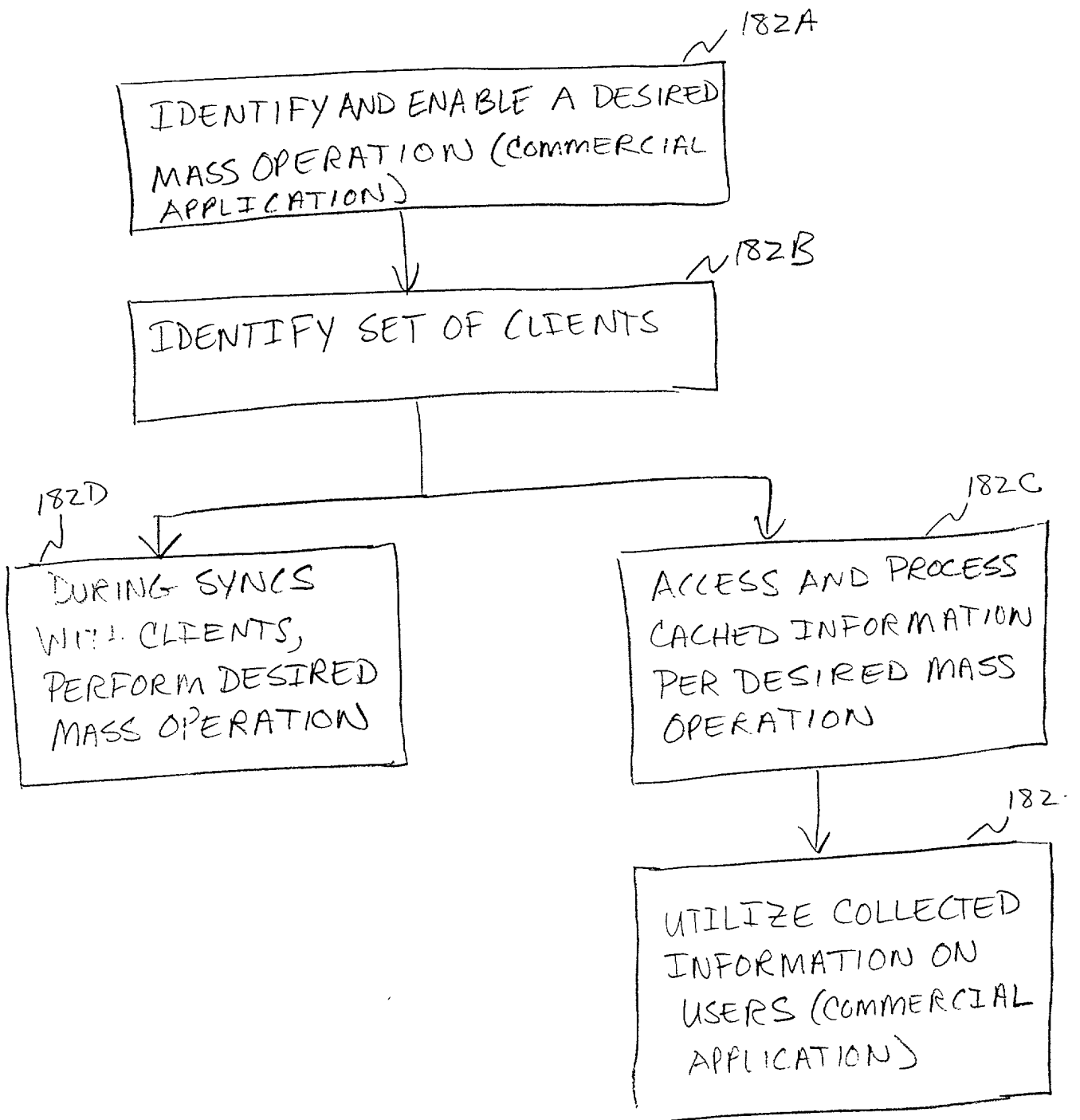


FIG. 1N

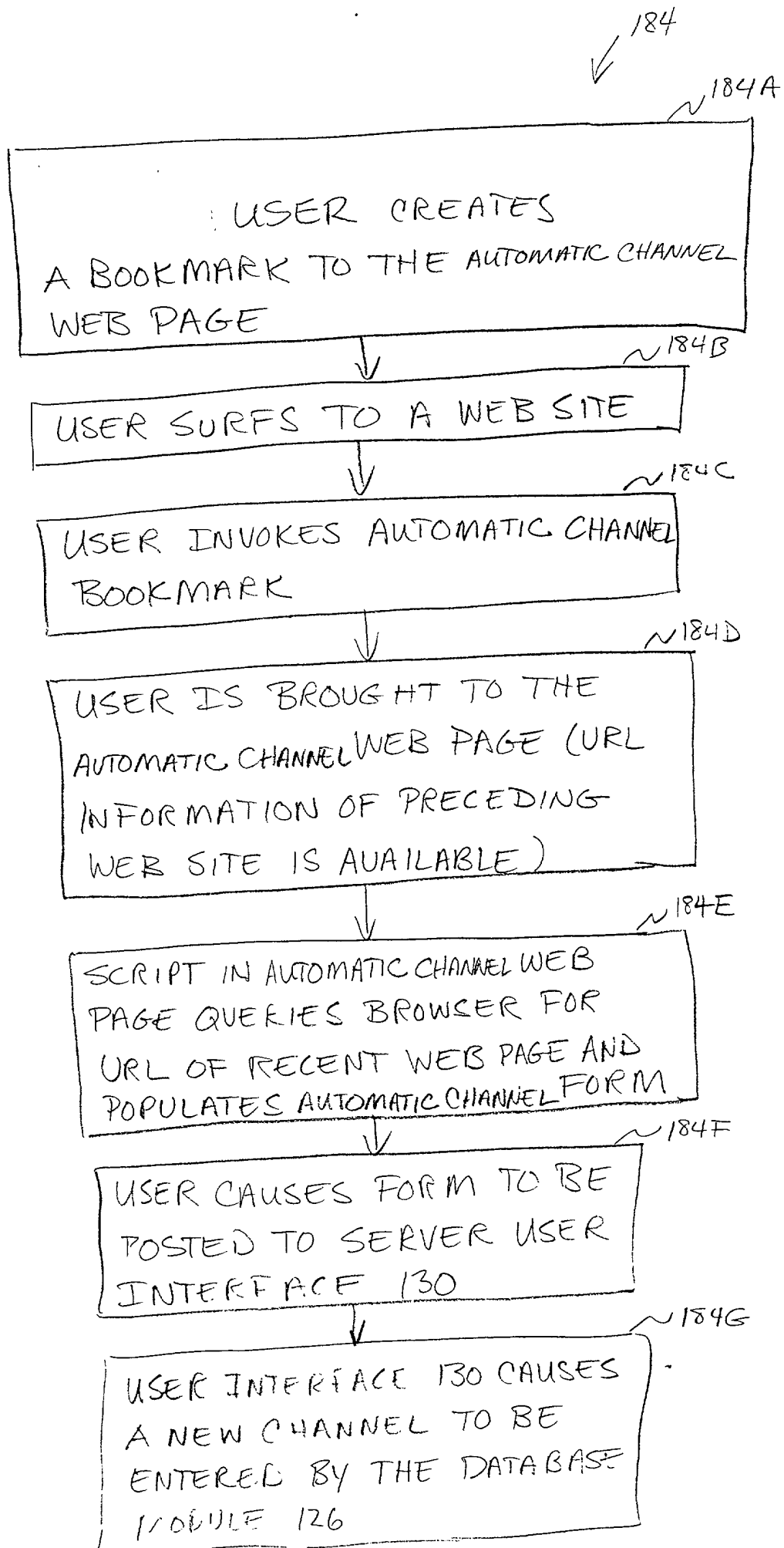


FIG. 10

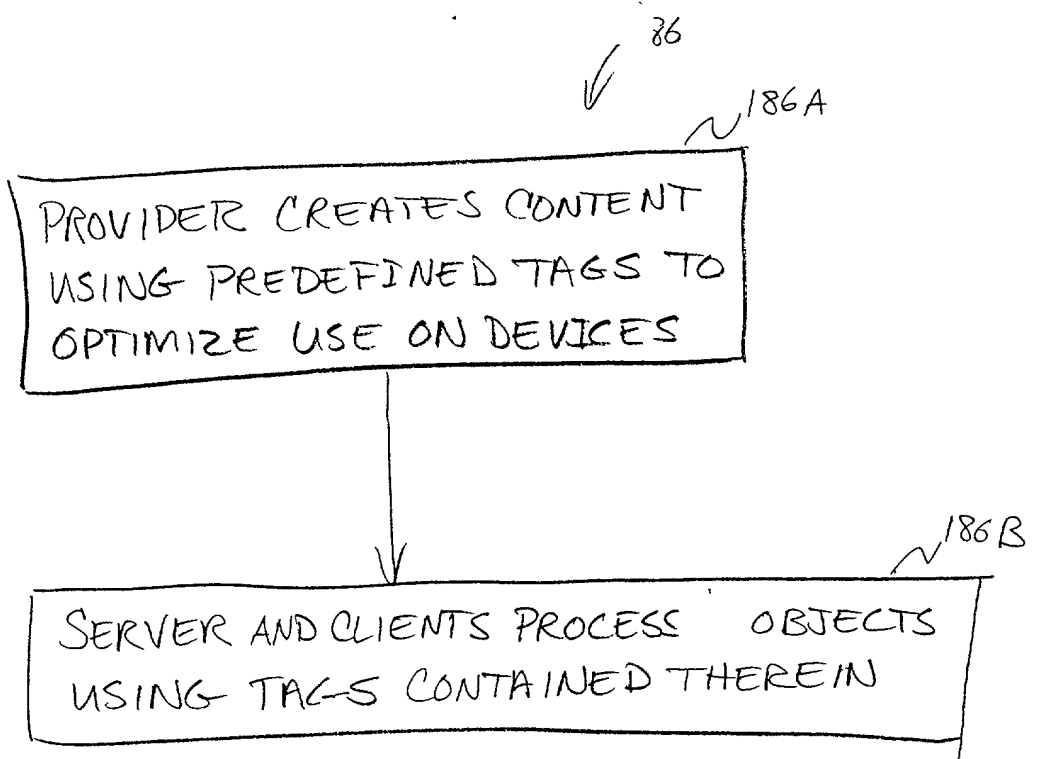


FIG. 1P

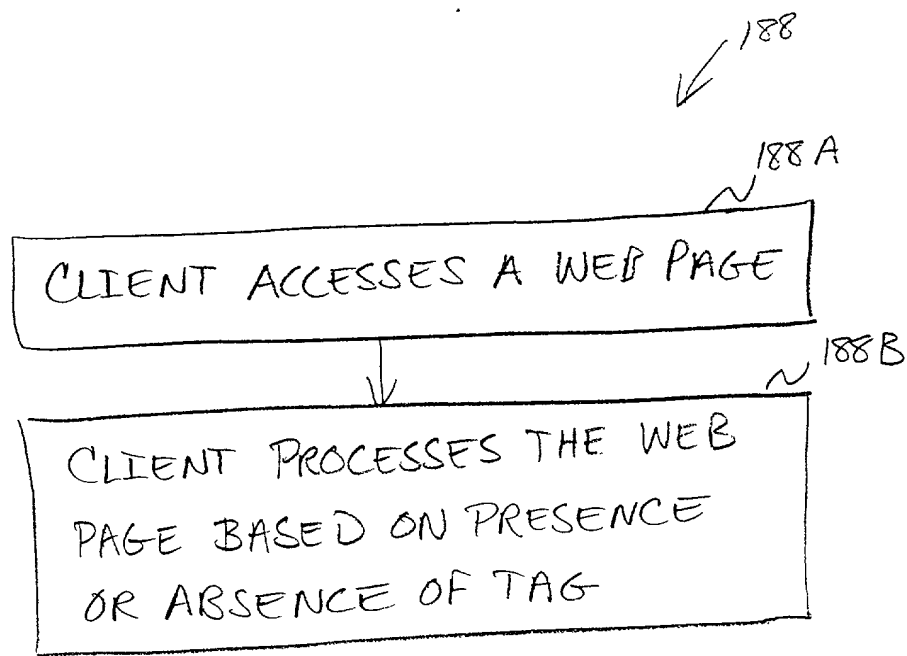


FIG. 1Q

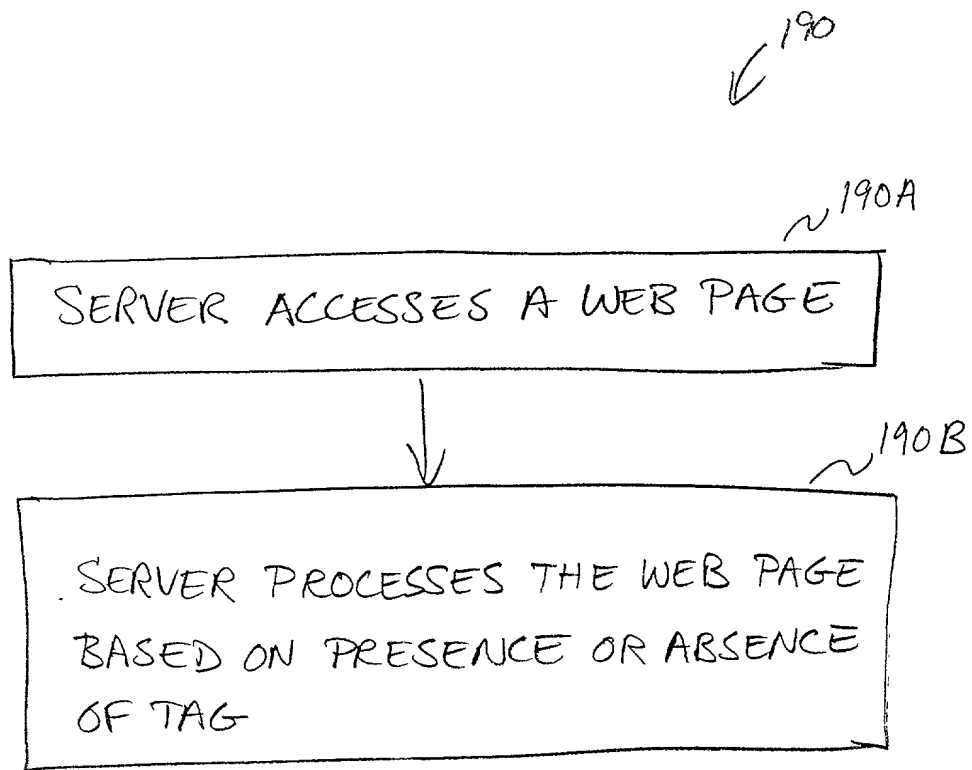


FIG. 1R

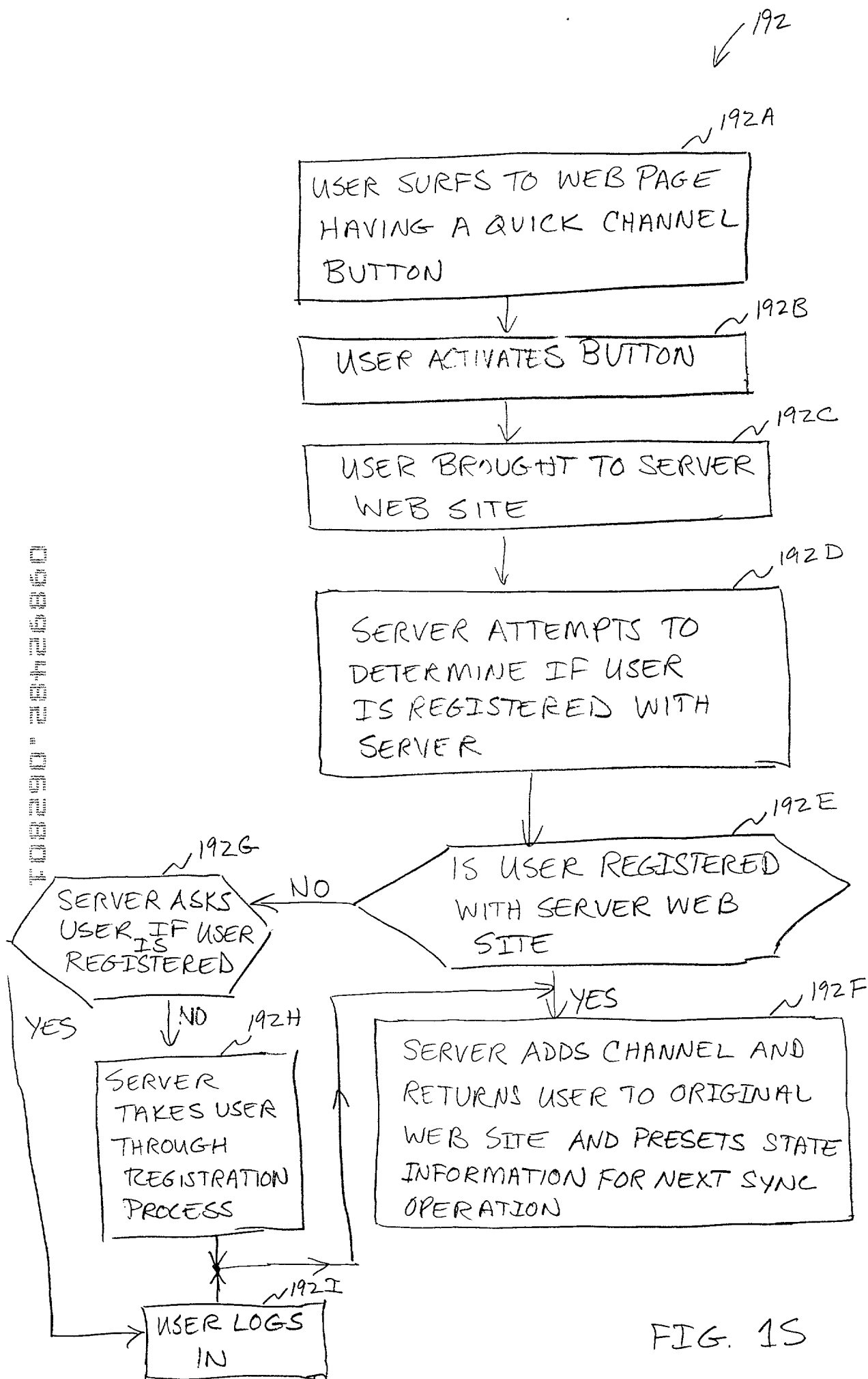


FIG. 15

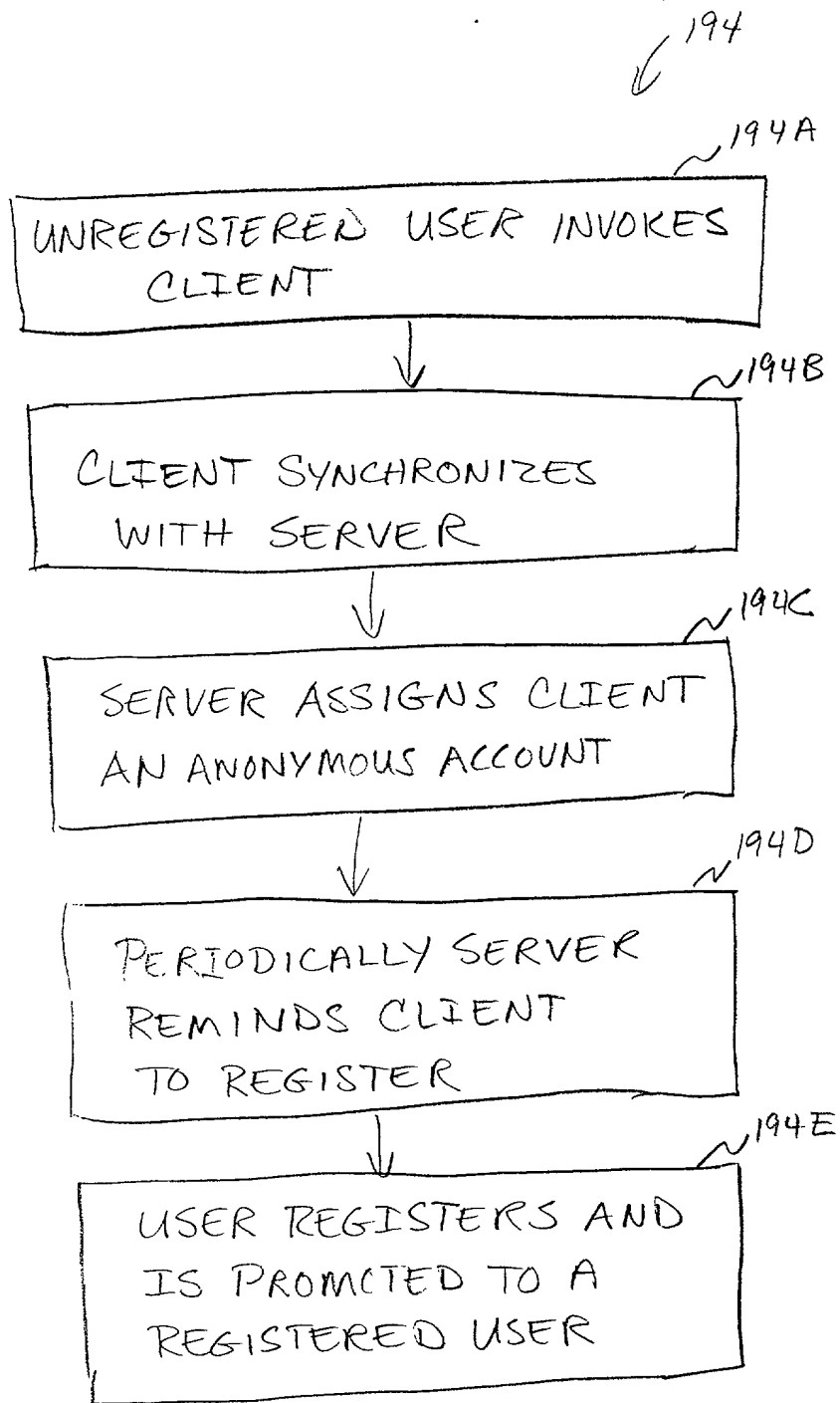


FIG. 1T

Core Technology : Placing Internet/
Intranet Content on Mobile Devices

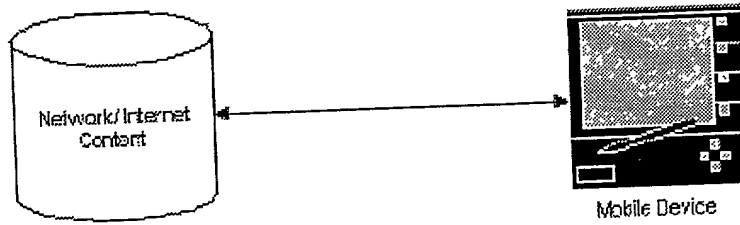


FIG. 1u

Mobile Device/Server Environment

Mobile Devices in a Client Server Environment

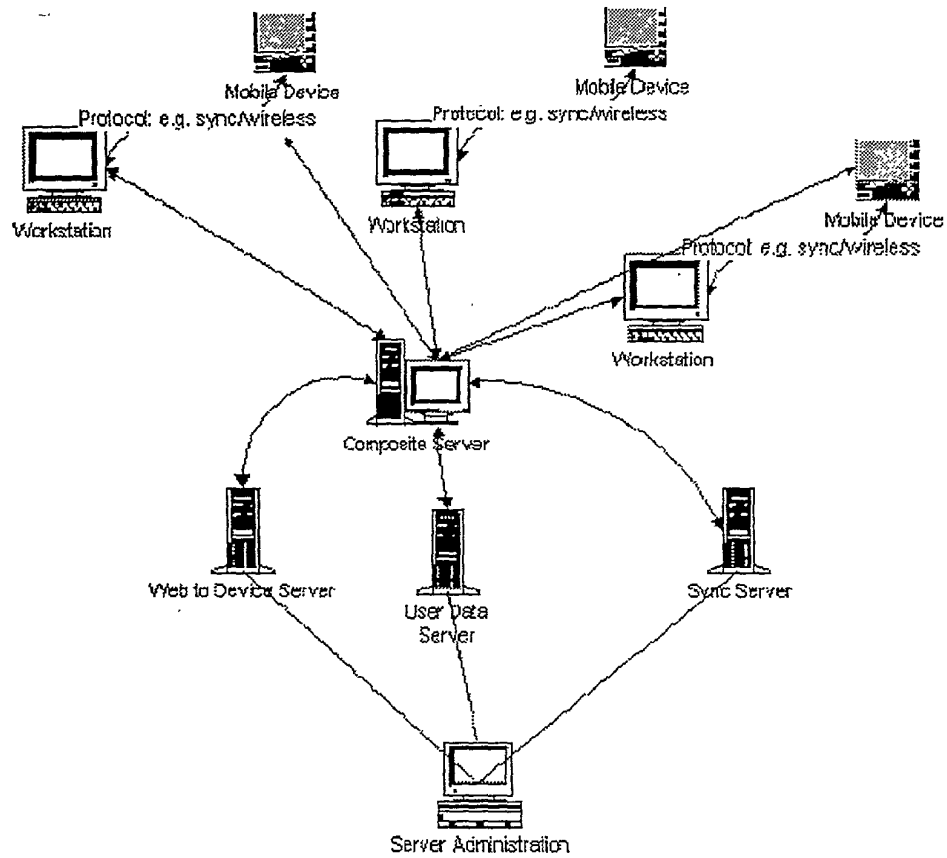


FIG. 1V

Downstream Protocol

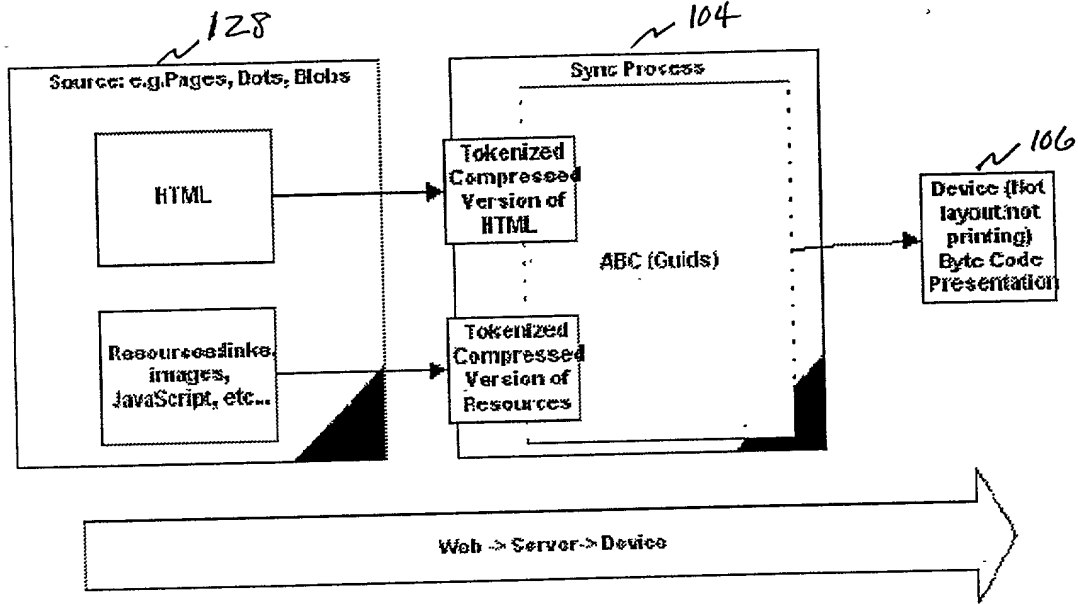


FIG. 1W

One Up/One Down Sync

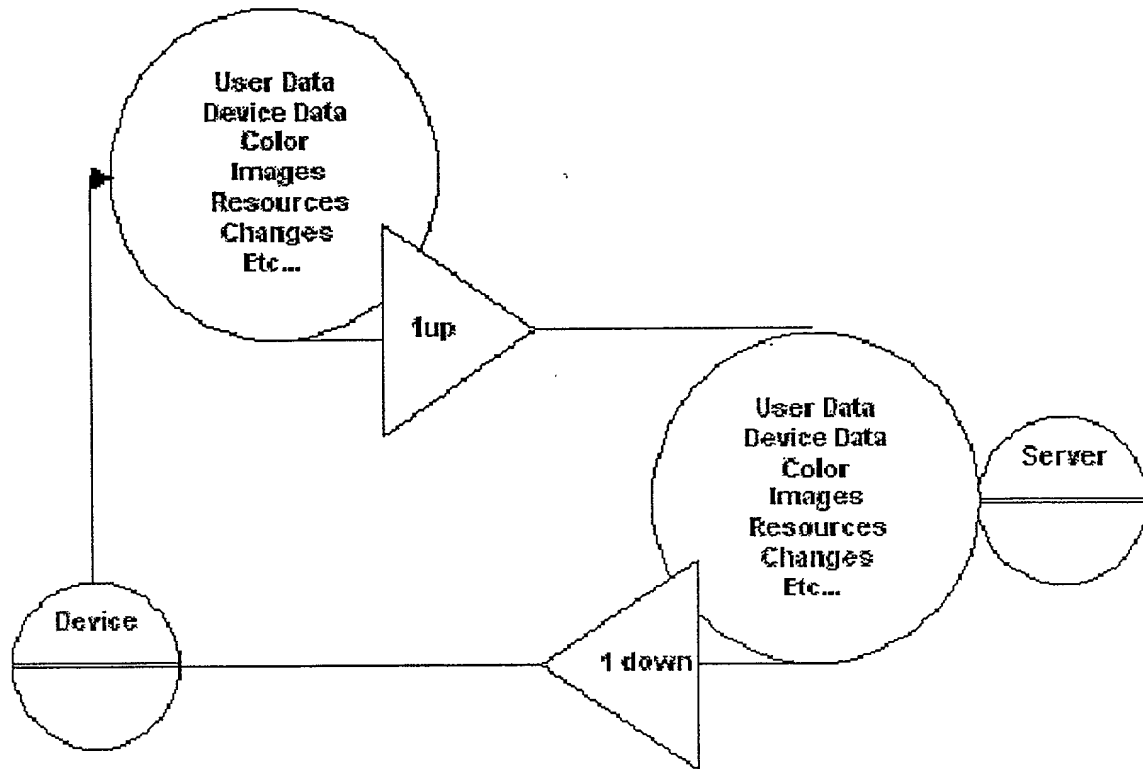


FIG. 1X

Sync Process

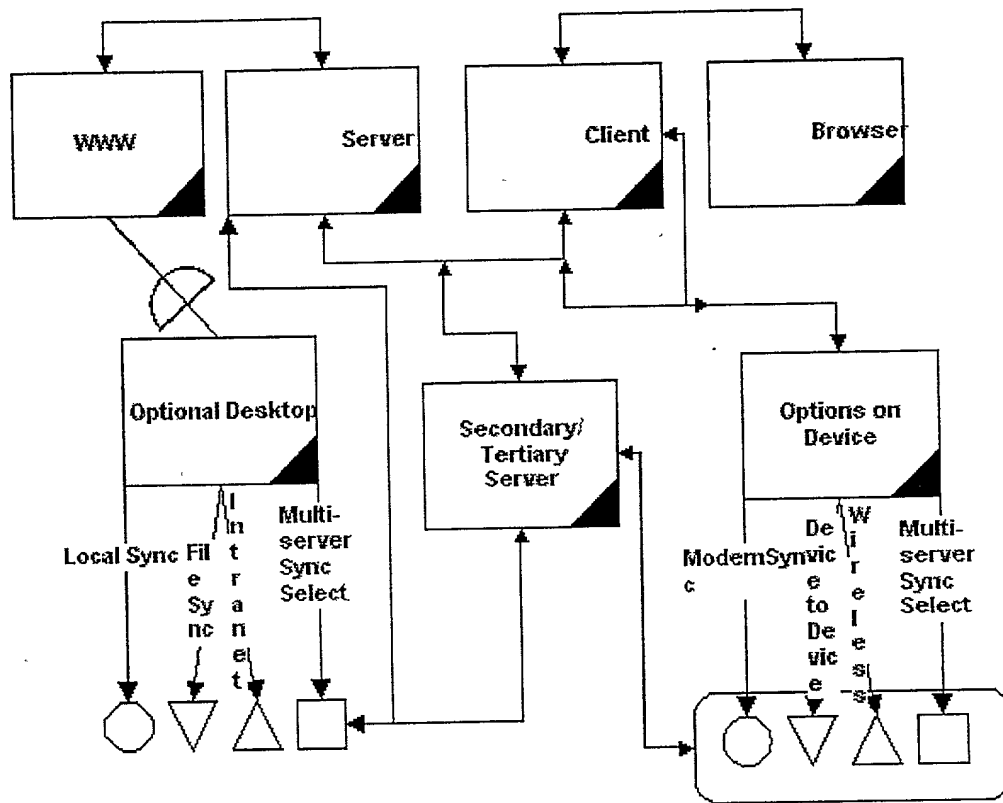


FIG. 14

Granular Variable Protocol

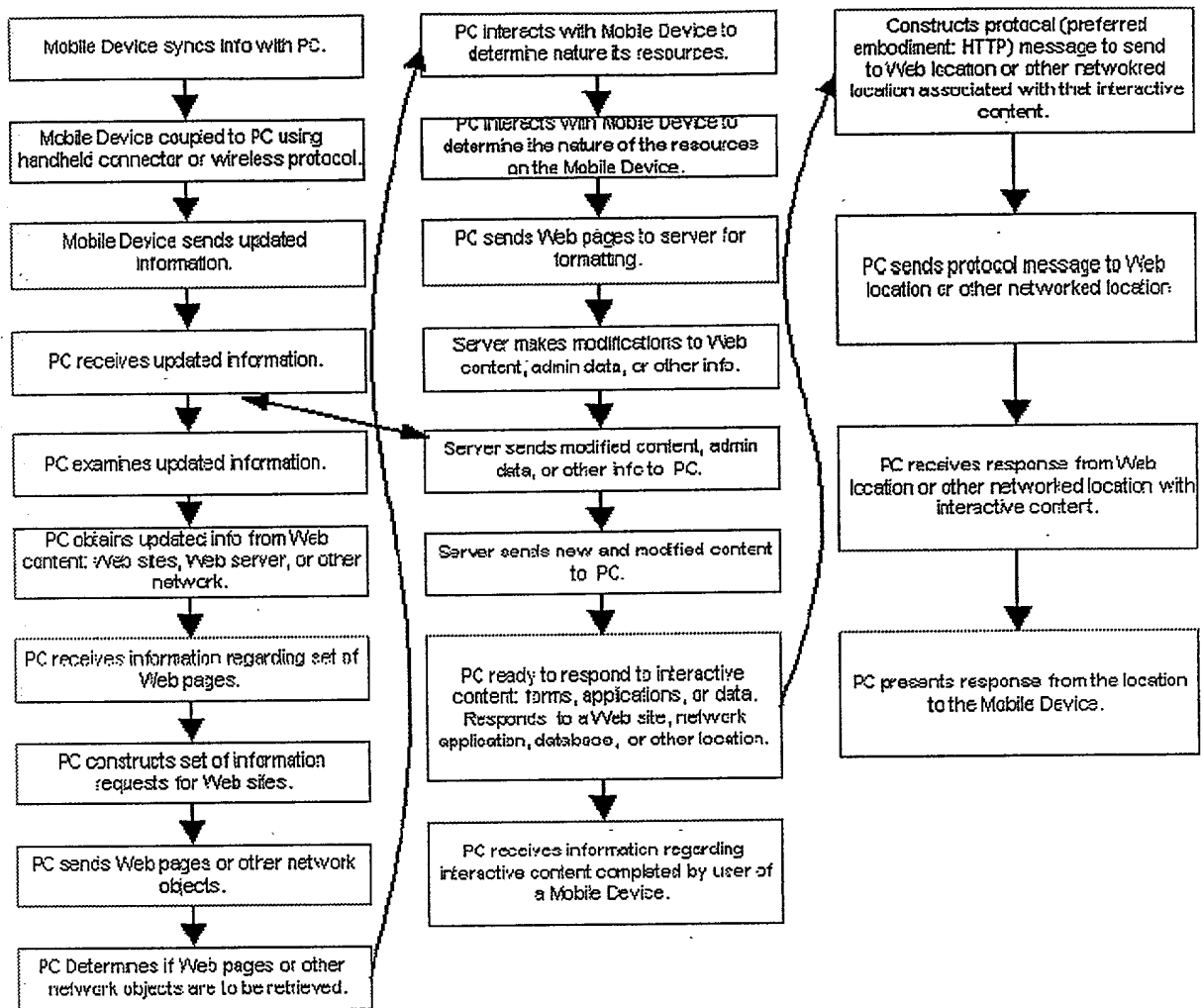


FIG. 17

Optimization: An Example

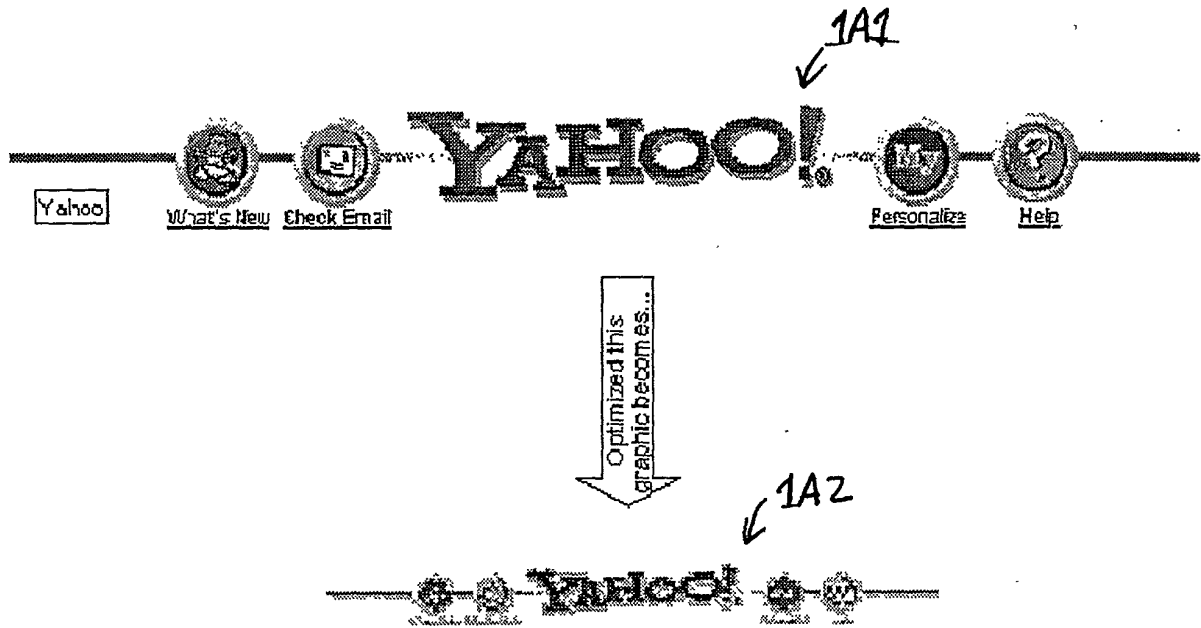


FIG. 1AA

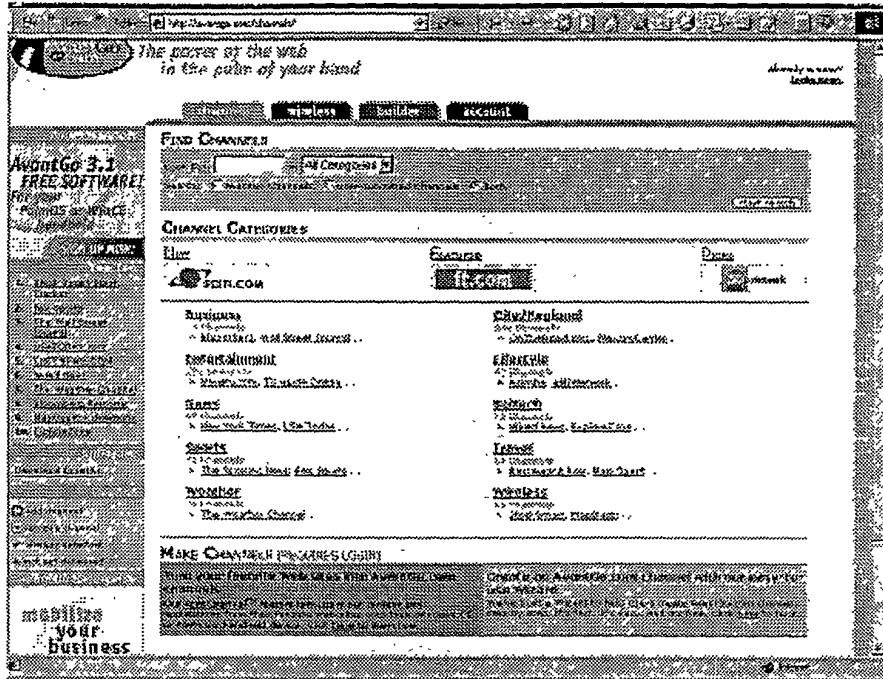
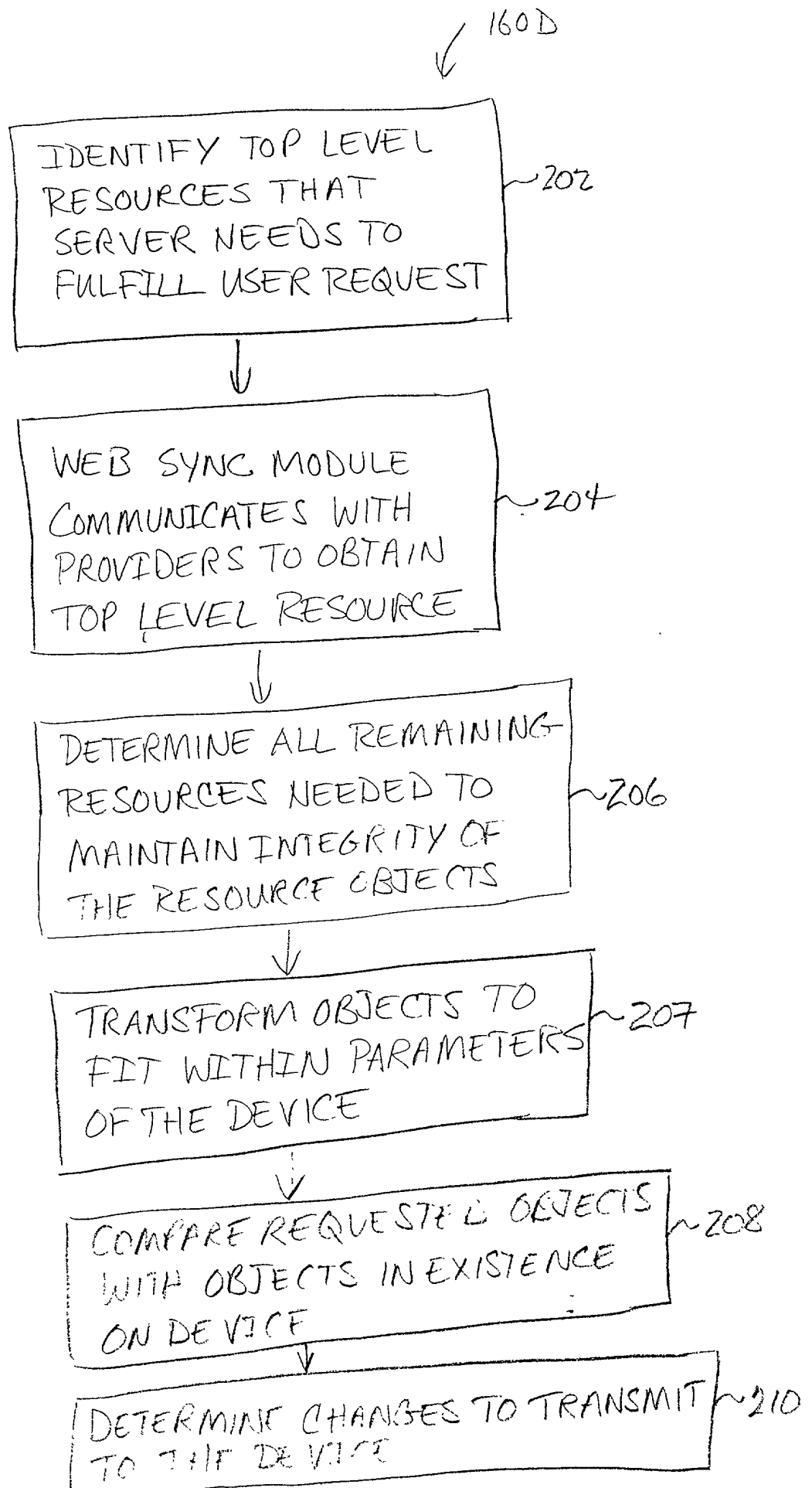


FIG. 1A

FIG. 2



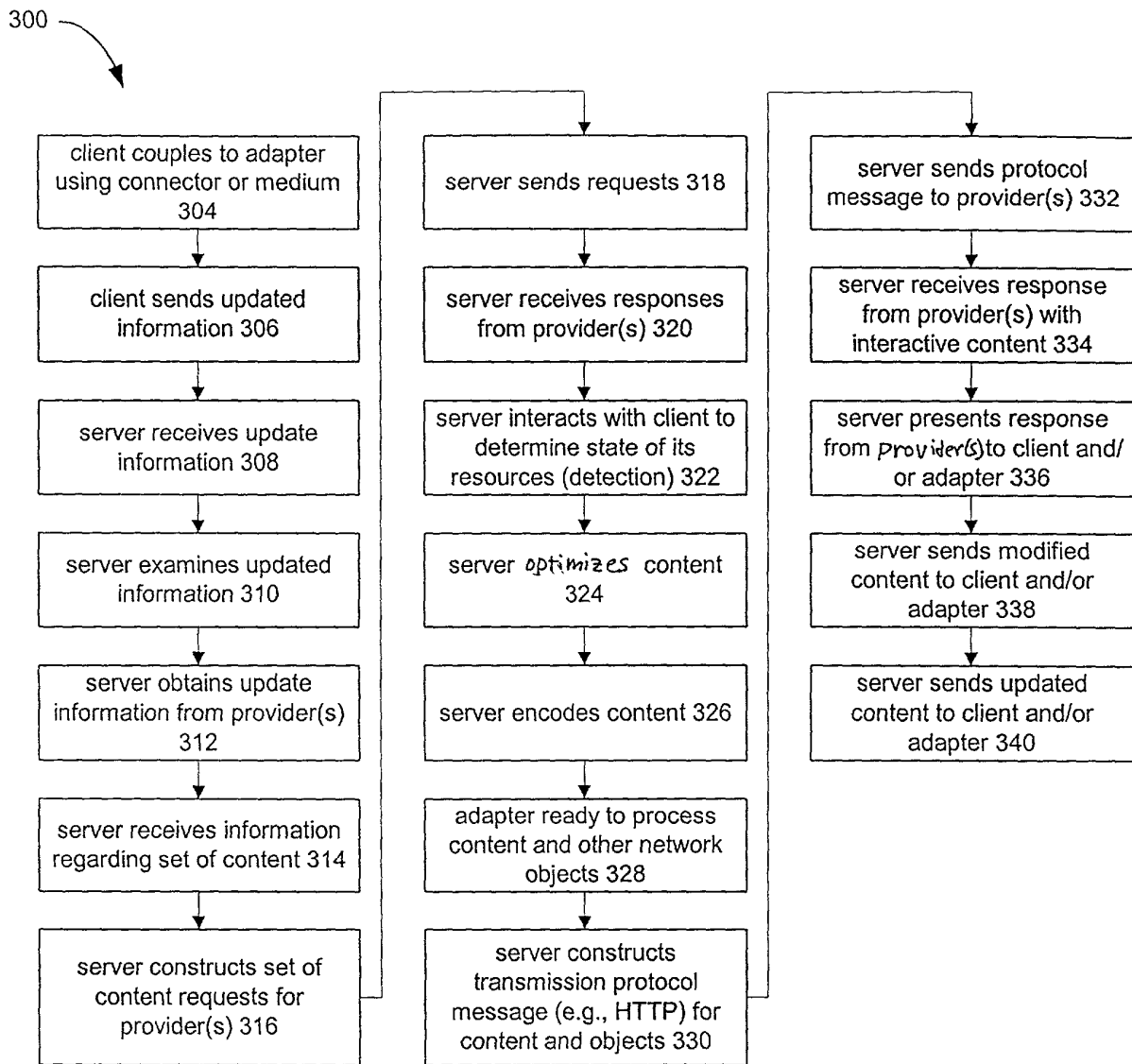


FIG. 3A

FIG. 3B

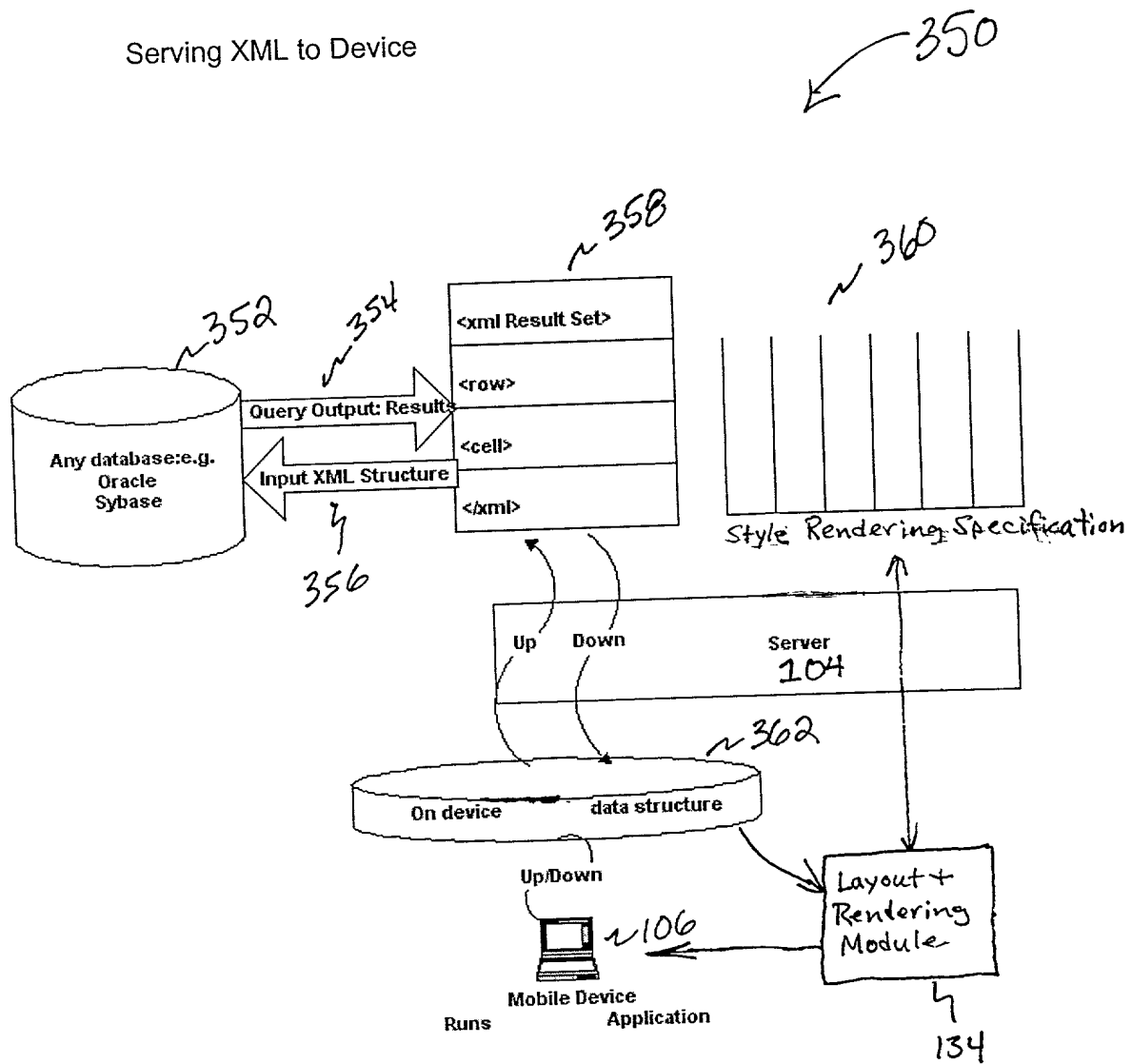


FIG. 3B

Off-by-any number Sync Recovery

375

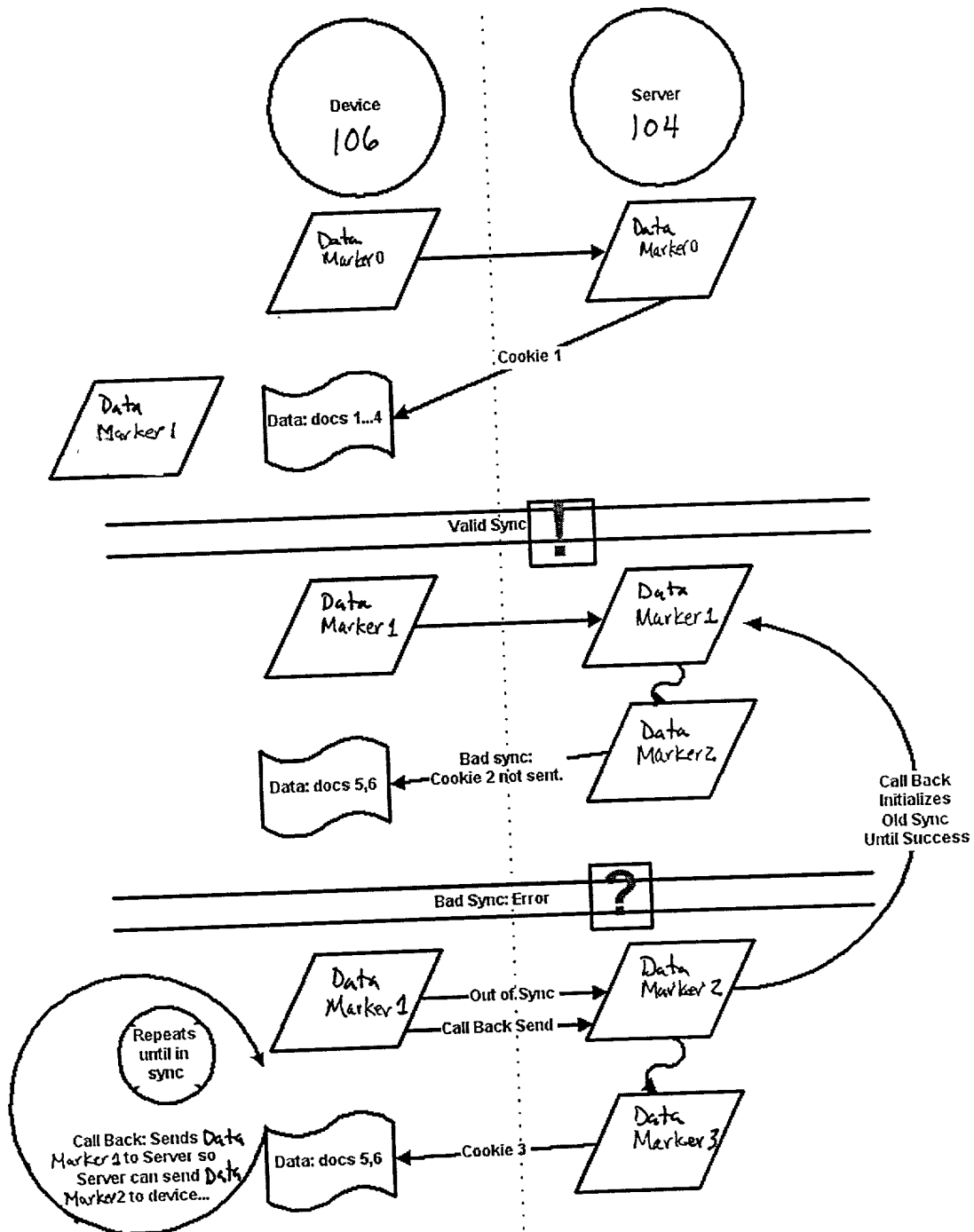


FIG. 3C

FIG. 4A

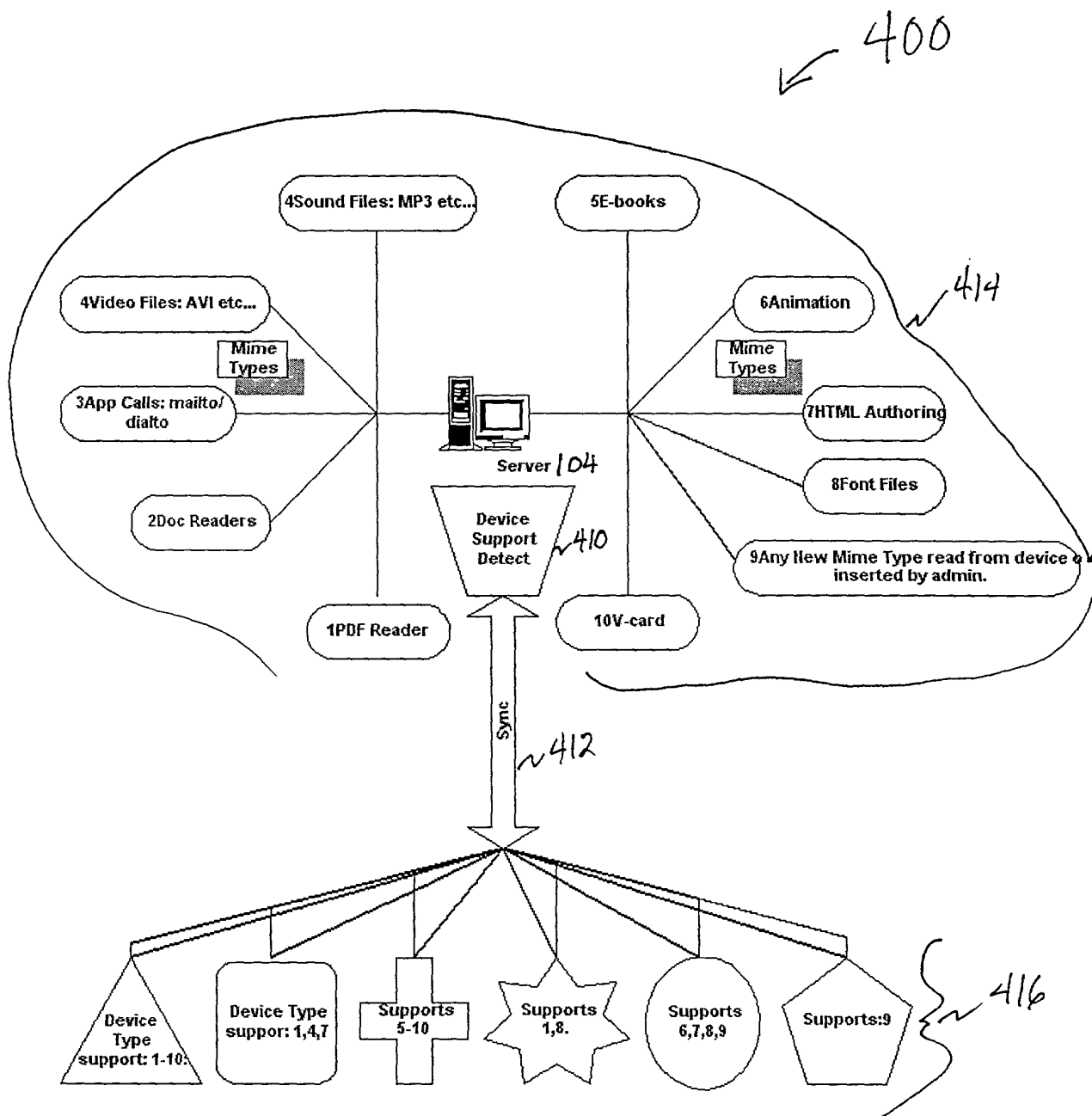


FIG. 4A

FIG. 4B

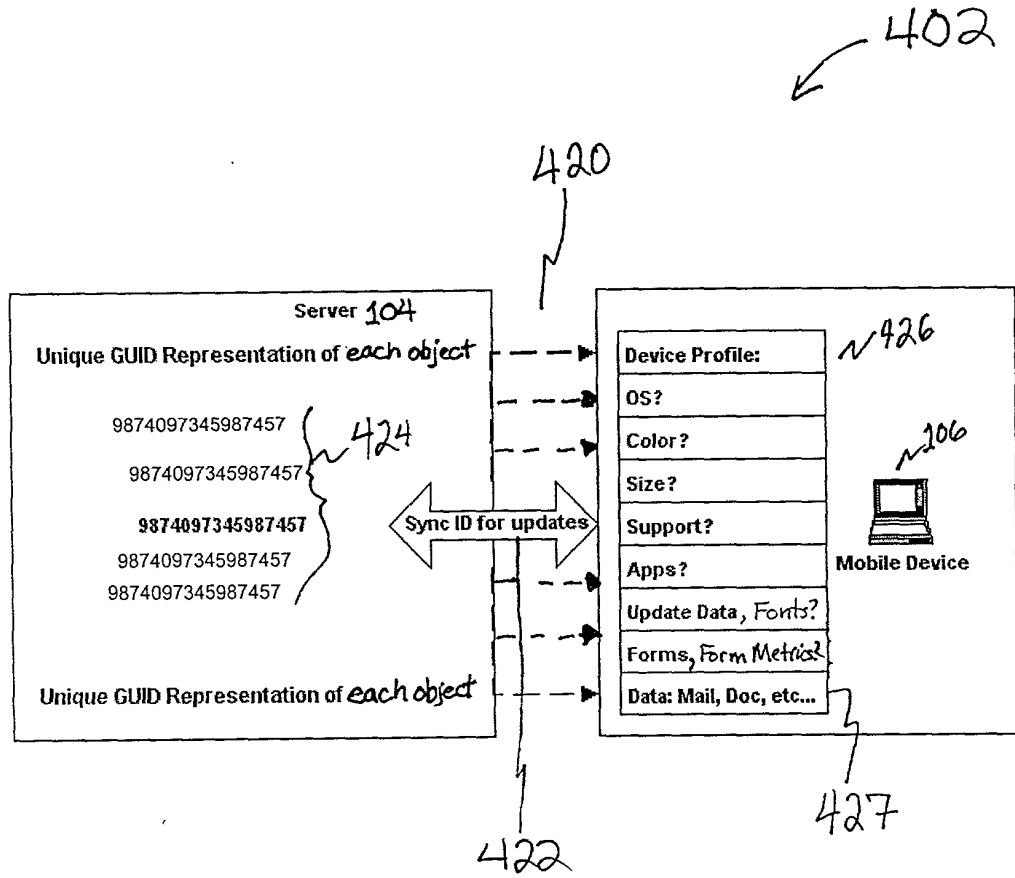
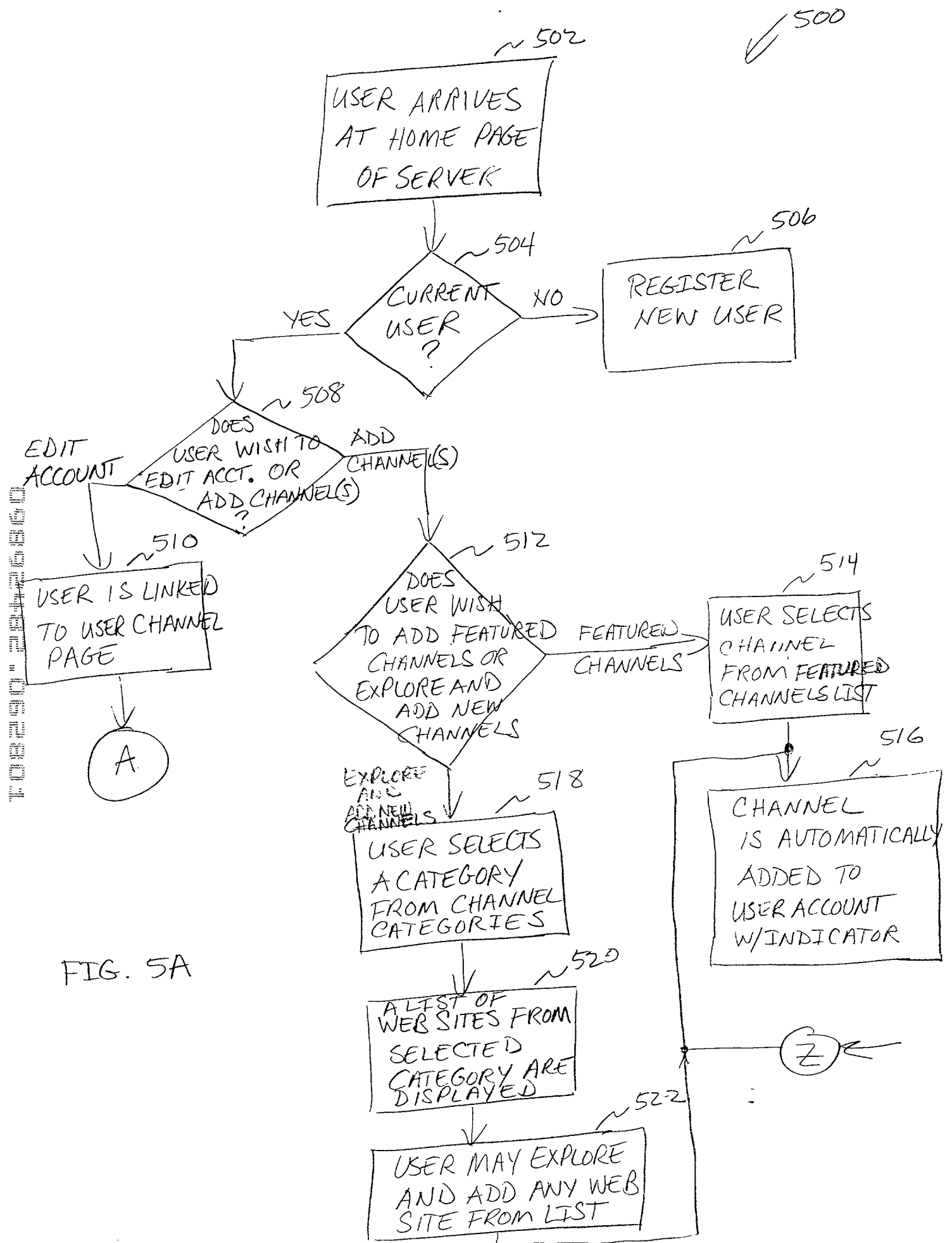


FIG. 4B



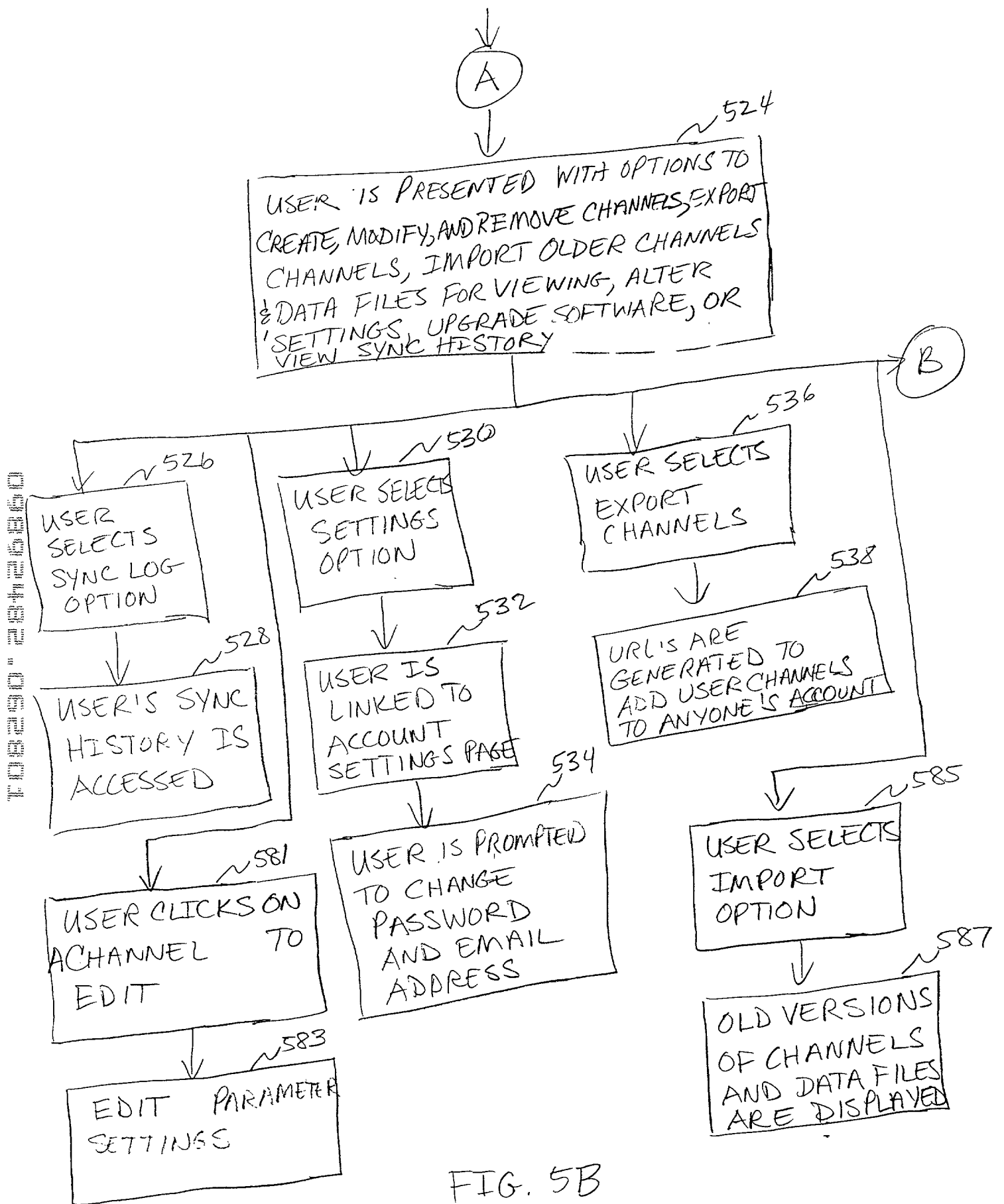
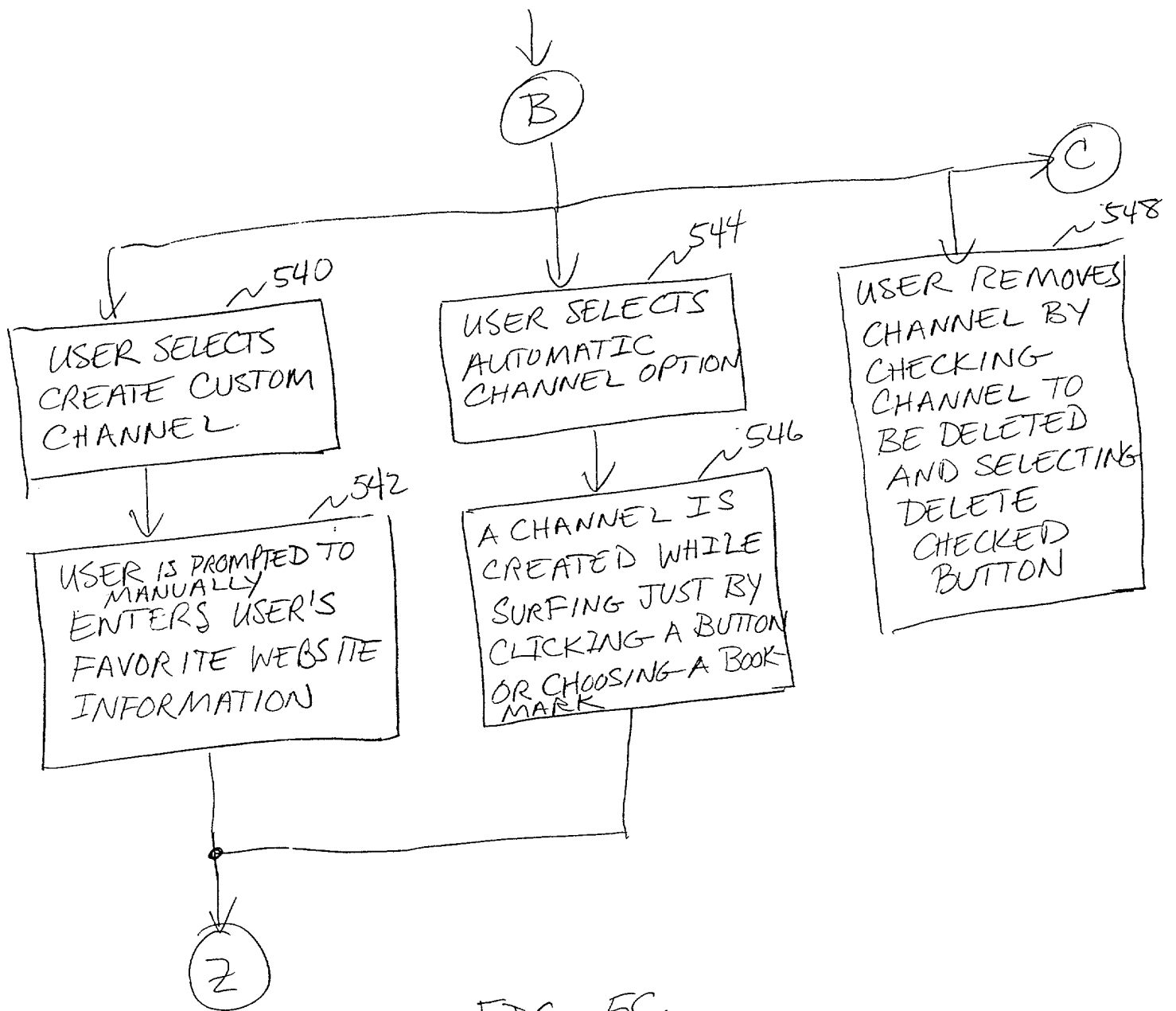
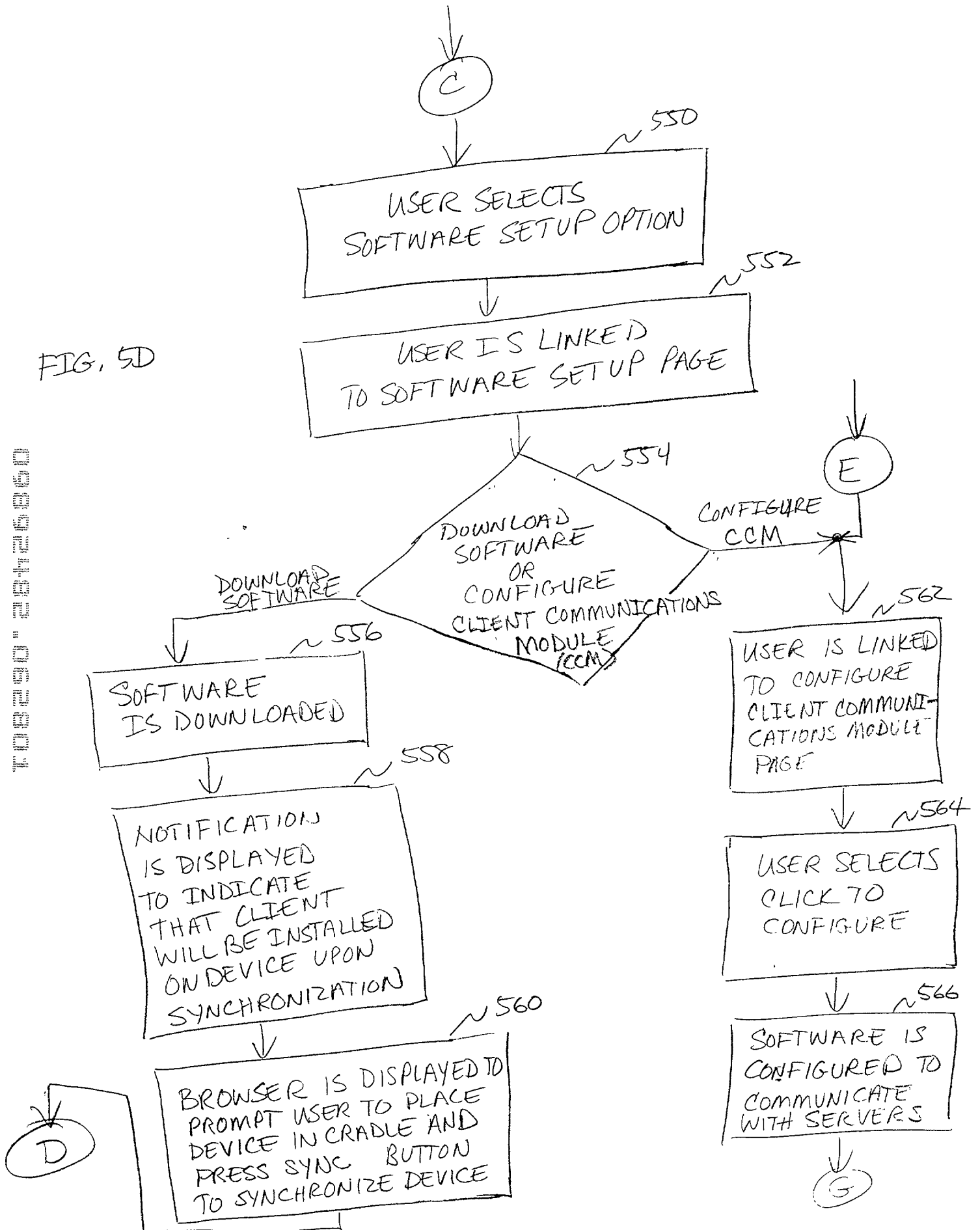


FIG. 5C



FIG, 5C



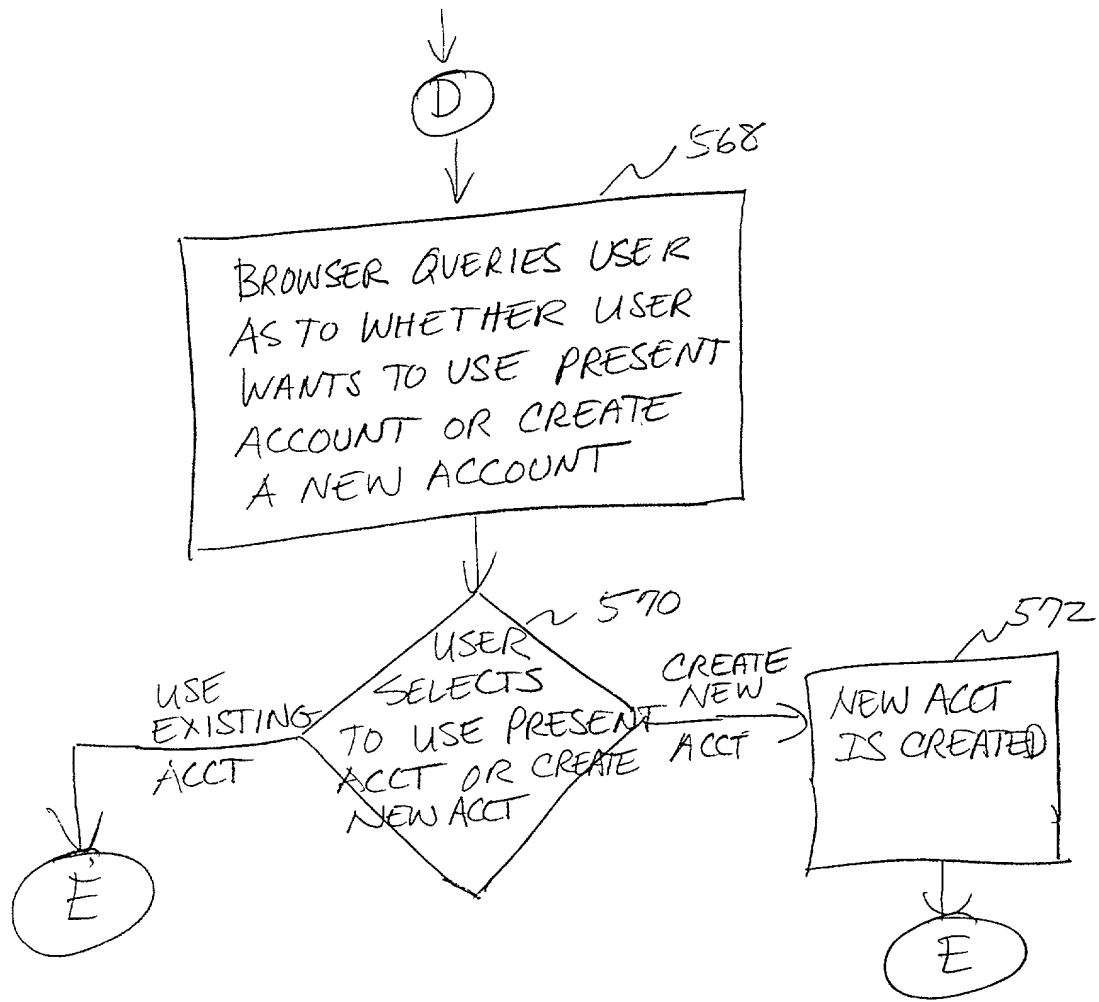
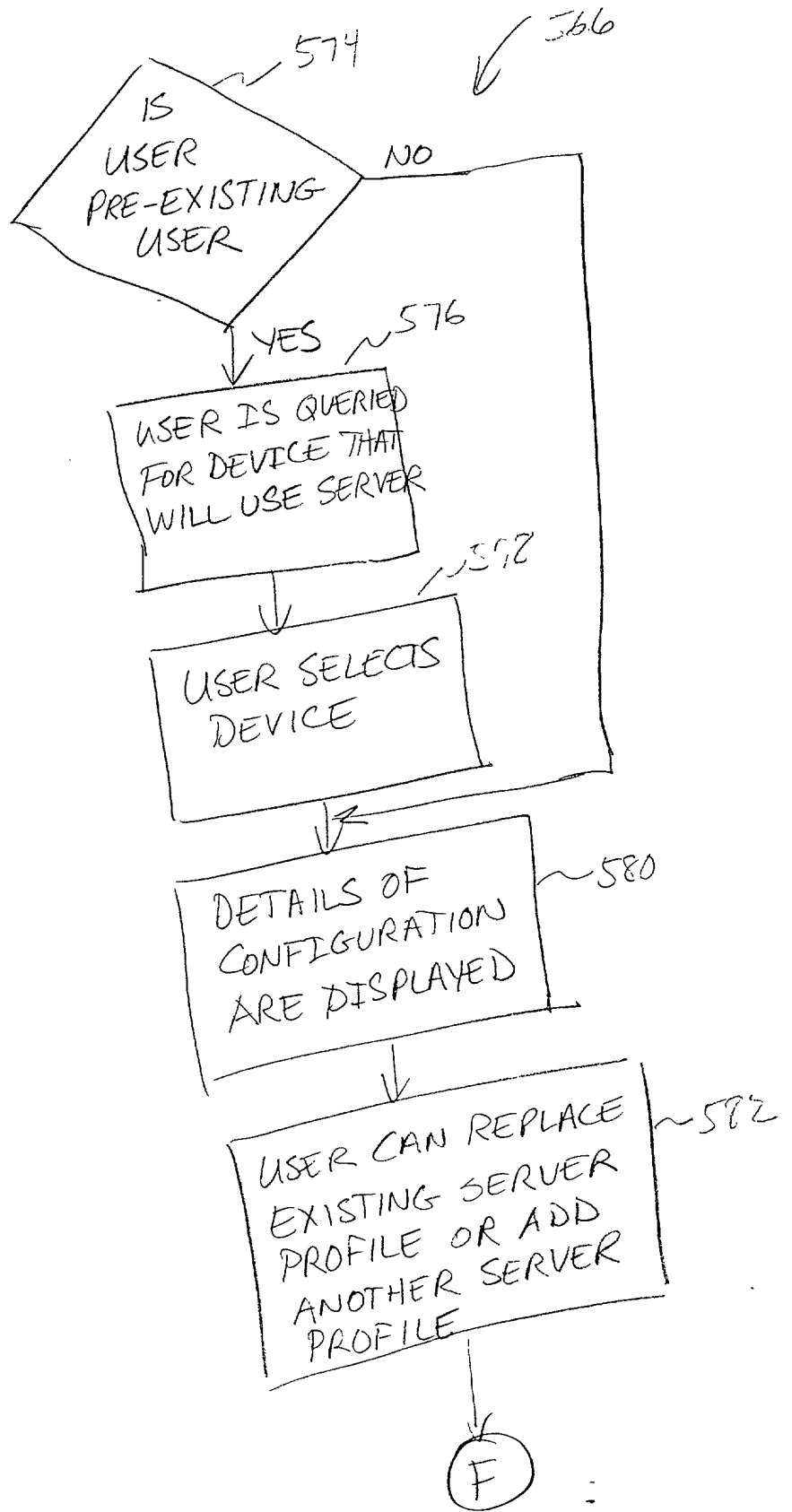


FIG. 5E

FIG. 5F



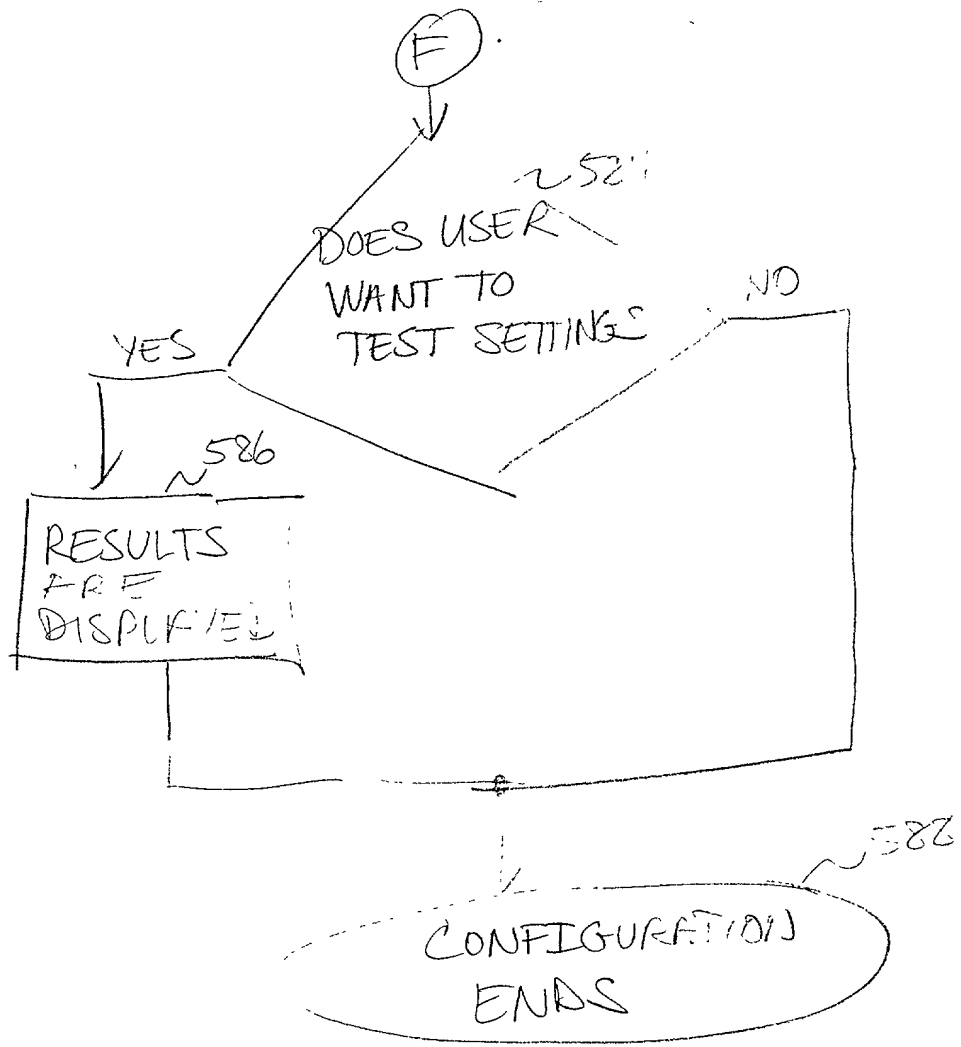


FIG. 3

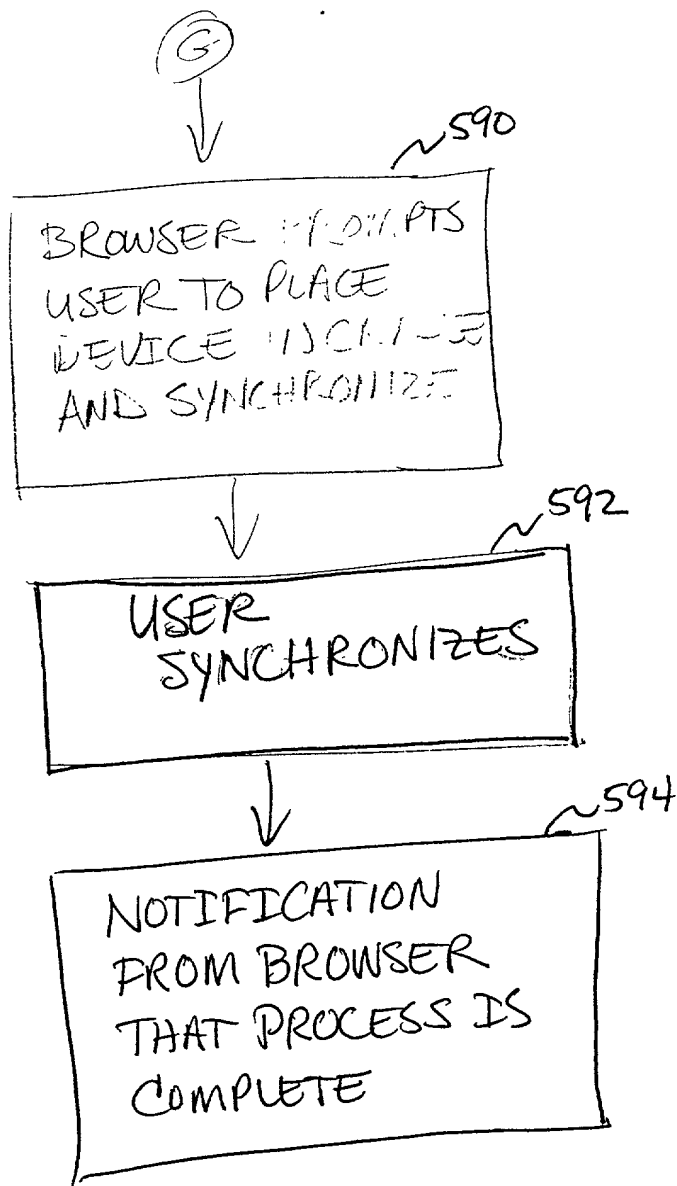
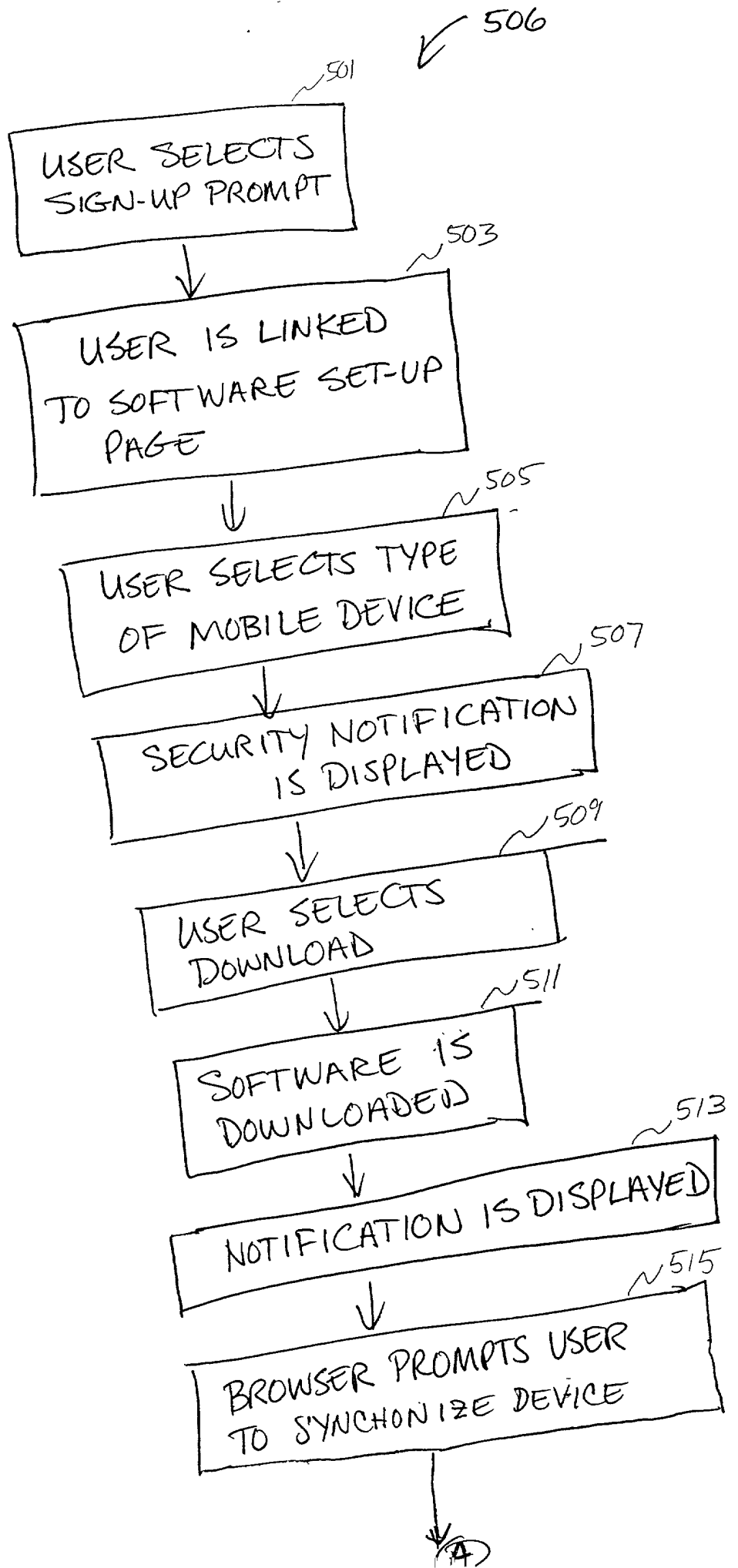


FIG. 5H

FIG. 5I



✓ S06 cont

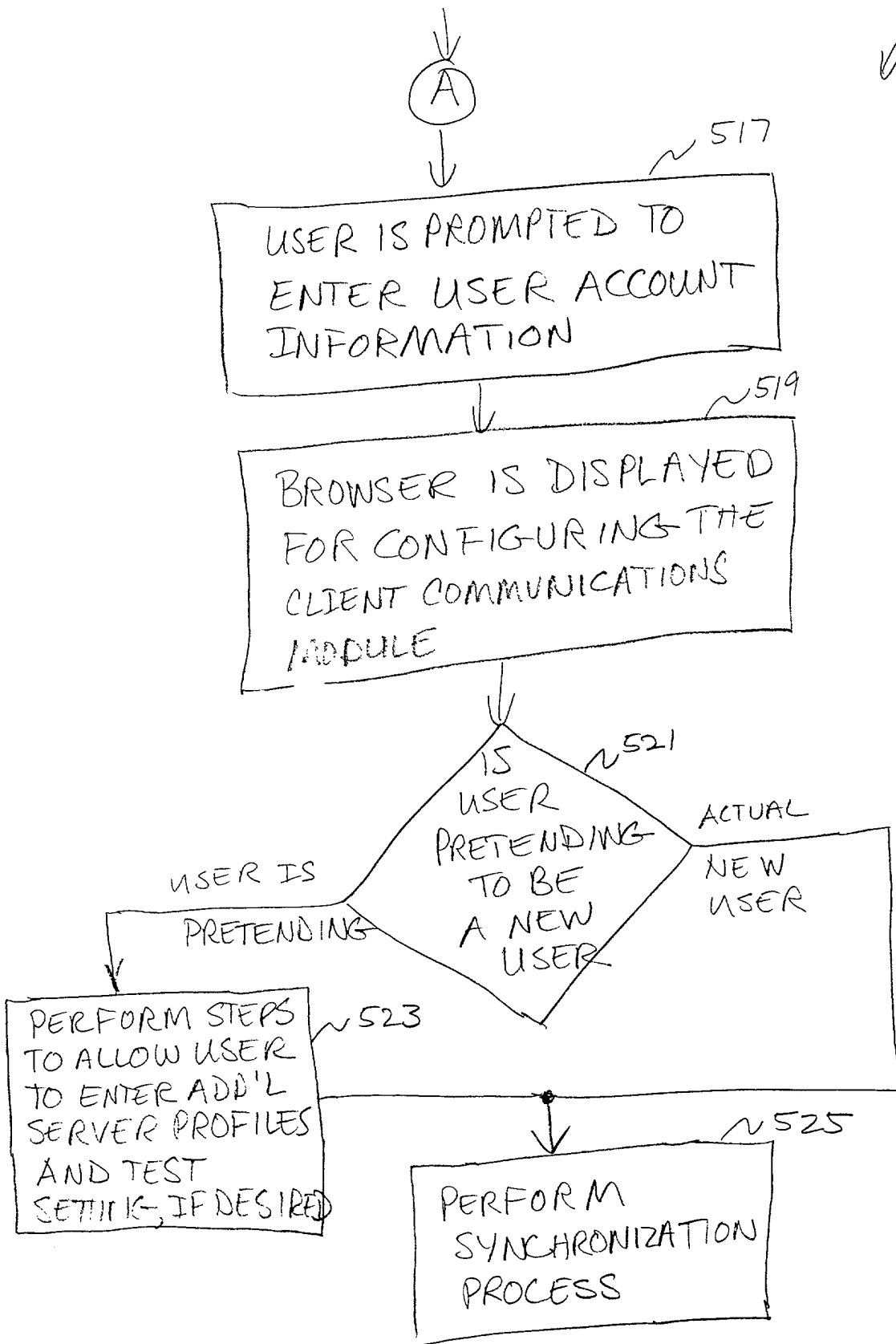


FIG. 5J

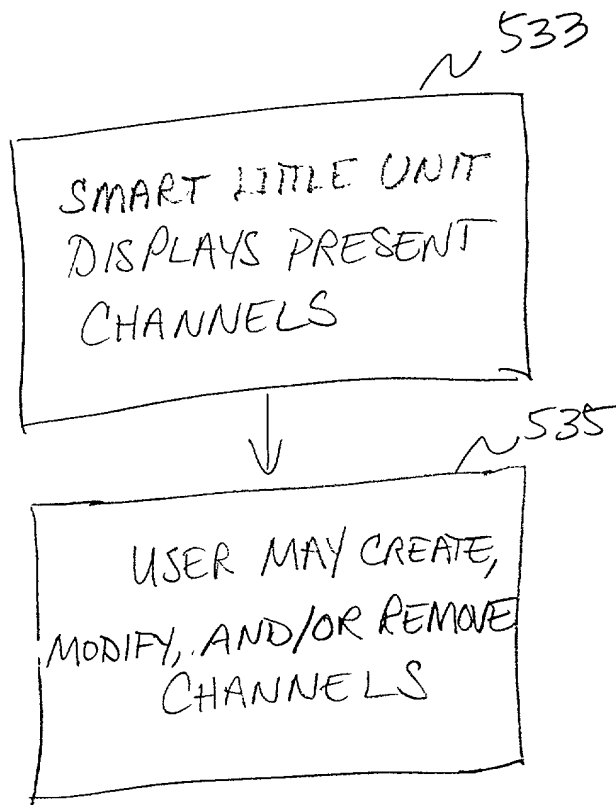


FIG. 5K

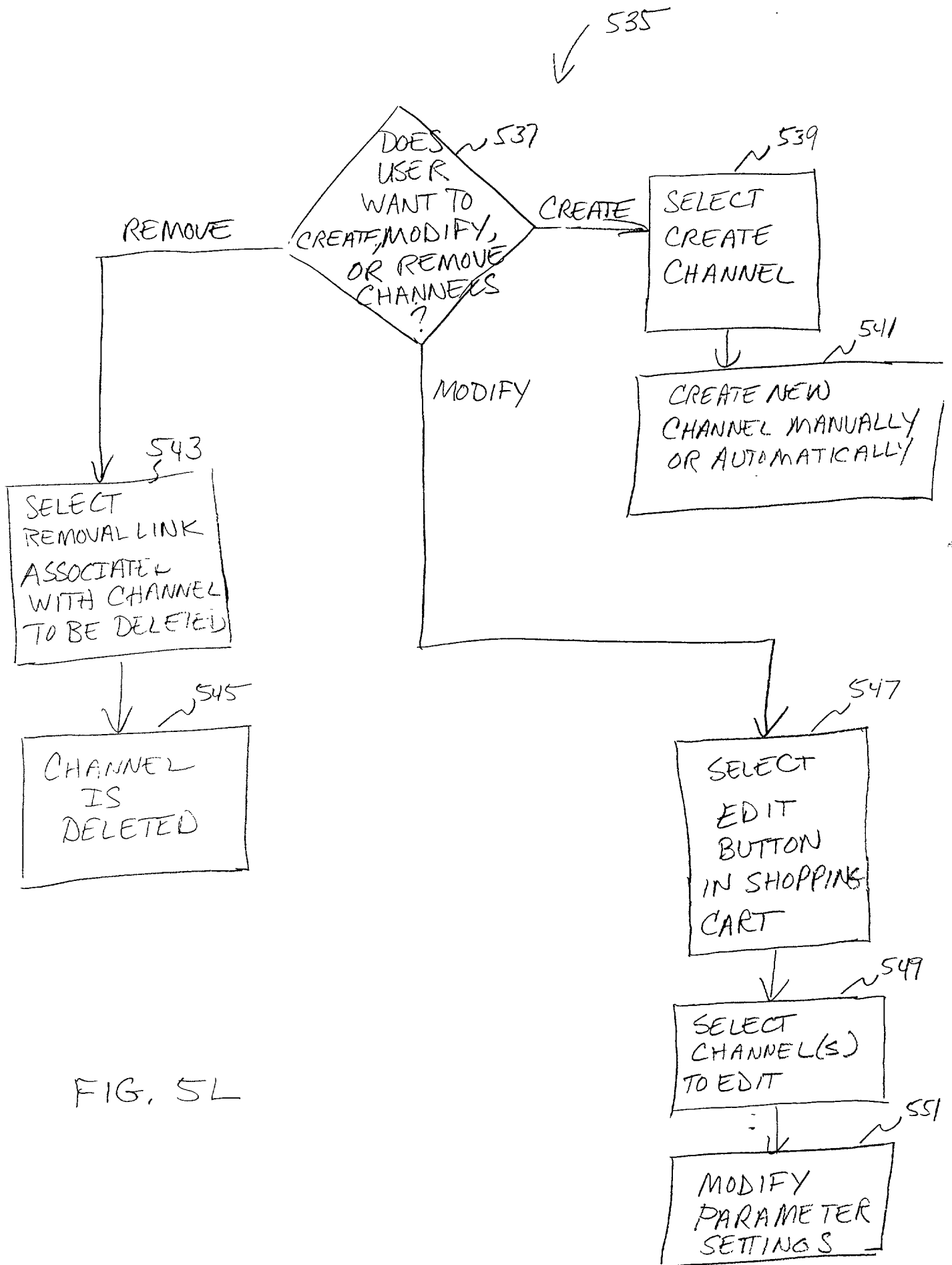


FIG. 5L

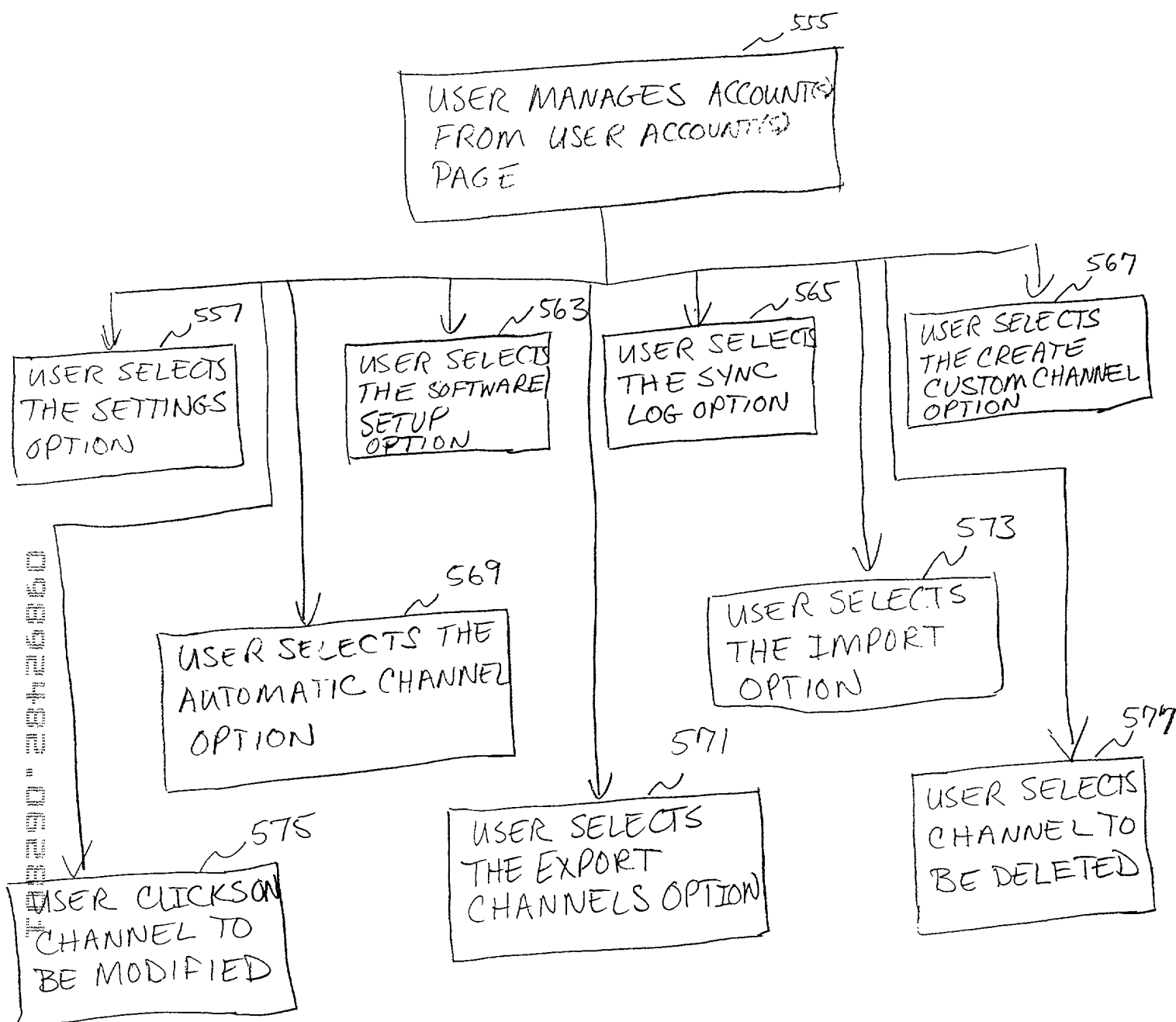




FIG. 5M

Forms Manager  

☐ 2:11p Maintenance Log success

☐ 2:12p Maintenance Log success

☐ 2:15p Service Request pending

FIG. 6

Stock Smart
 - Home
 - Monitor List
 Up to 10 Tickers
 msft orcl
 Separate by Spaces
 Update
 Wednesday, MAY 05, 1999 05:53PM
 Copyright 1996-1999 Stock Smart
 all rights reserved

File Edit Go Tools

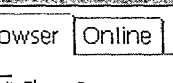
Channel Manager

<input type="checkbox"/> <u>My Sales Forms</u>	1K
<input type="checkbox"/> <u>Sales Demo</u>	30K
<input type="checkbox"/> <u>Sales Force Automation Forms</u>	40K
<input type="checkbox"/> <u>Survey</u>	90K

Select All **Clear**

The Clear button will delete the selected channels from the device. These channels will come back the next time you sync.

Start **4:25p**



AvantGo Options

OK X

Browser Online

☒ Show Images

☒ Show Detailed Find Results

☐ Always Show Open Page Window

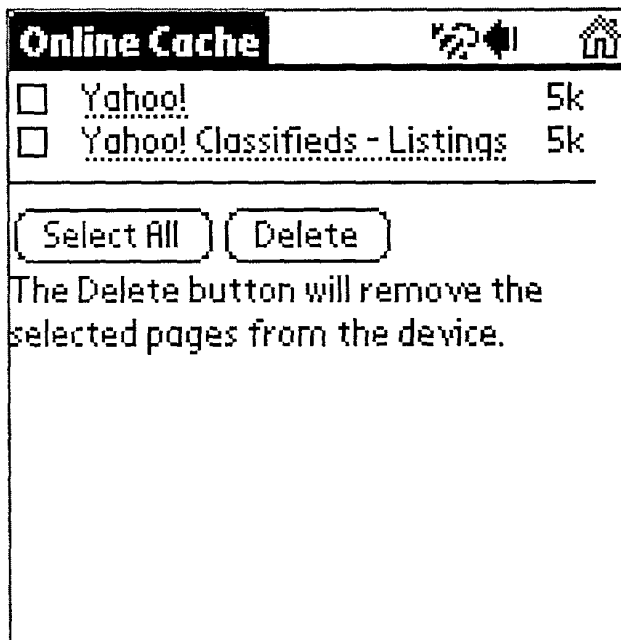


FIG. 10

1102

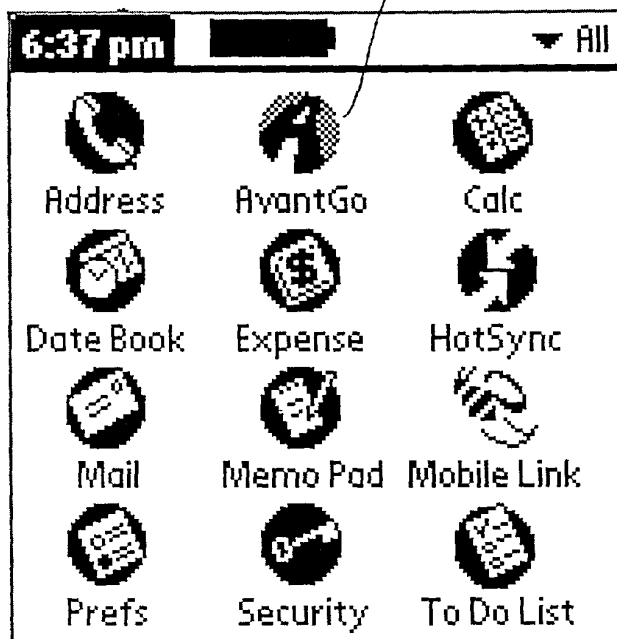


FIG. 11



FIG. 12

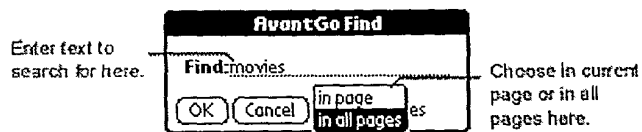


FIG. 13

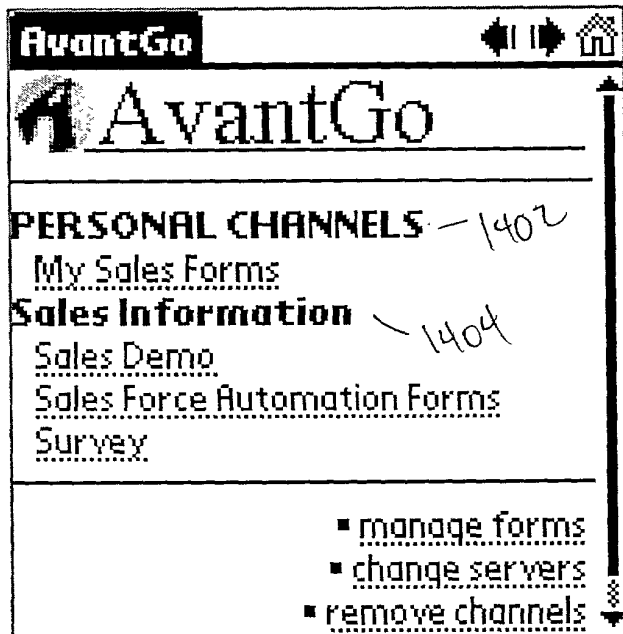


FIG. 14



AvantGo opens, showing your channels.
Tap a channel's name to display it.

Fig. 15

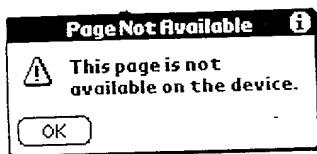


FIG. 4b

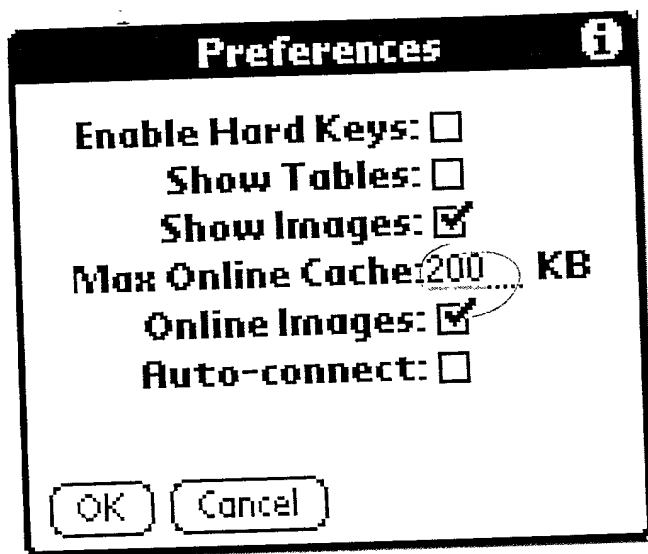
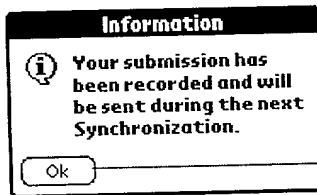


FIG. 17



FIG. 17



Click here to save the form and submit it the next time you sync.

FIG. 19

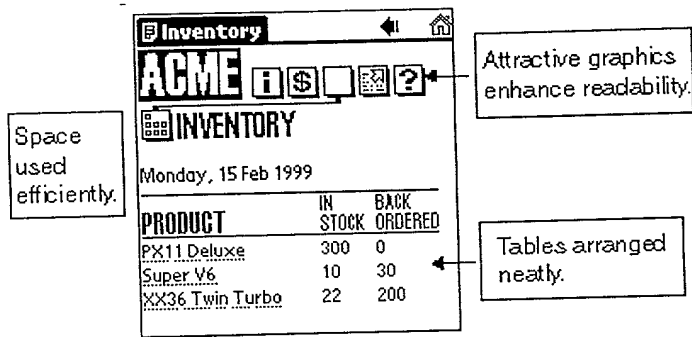
[illegible]

Fig. 20



Increase font

FIG. 21



Decrease font

FIG. 22

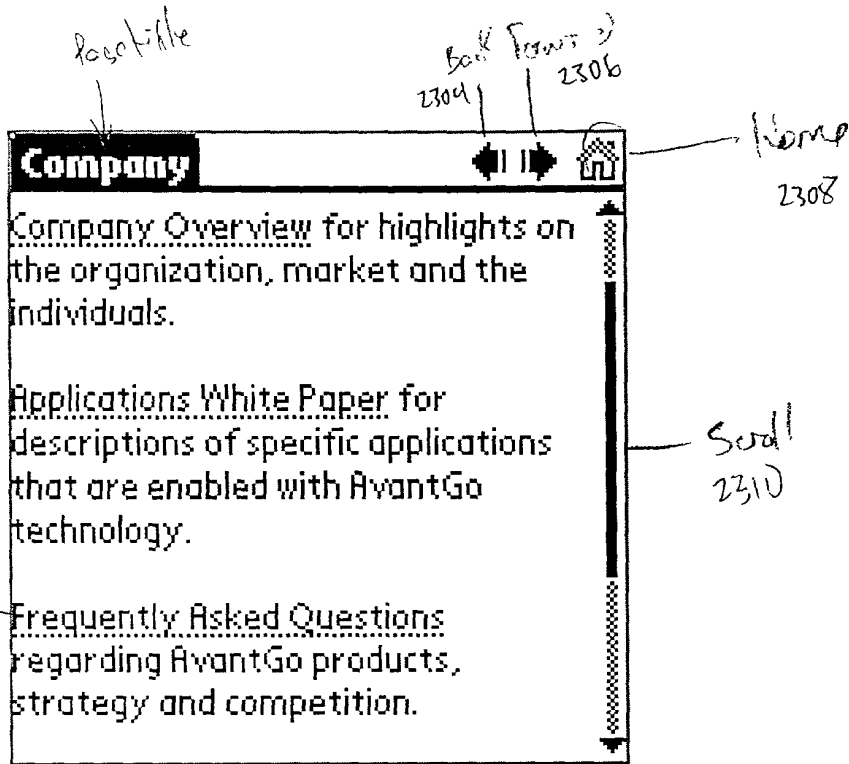


FIG. 23

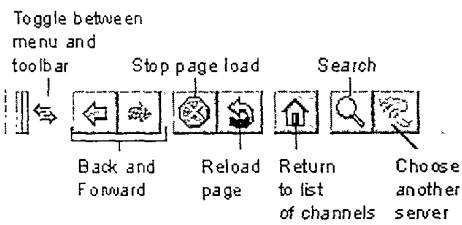


FIG. 24

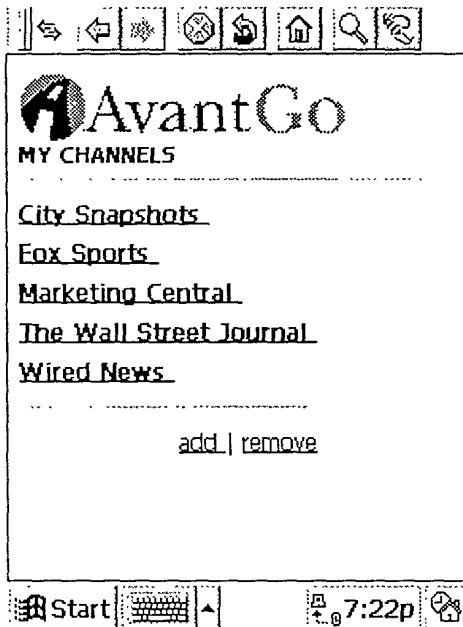


FIG. 25

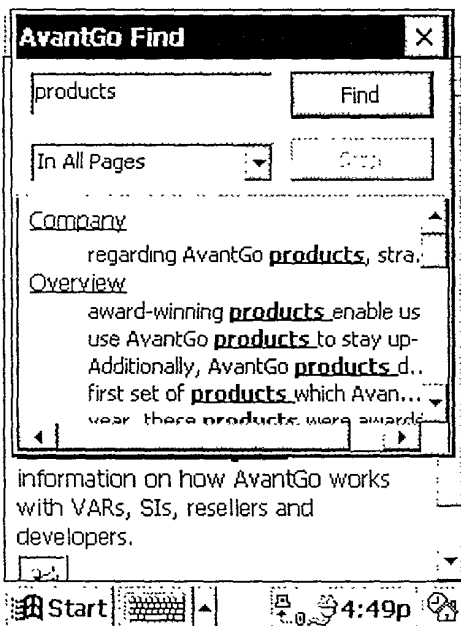


FIG. 26

FIG. 27

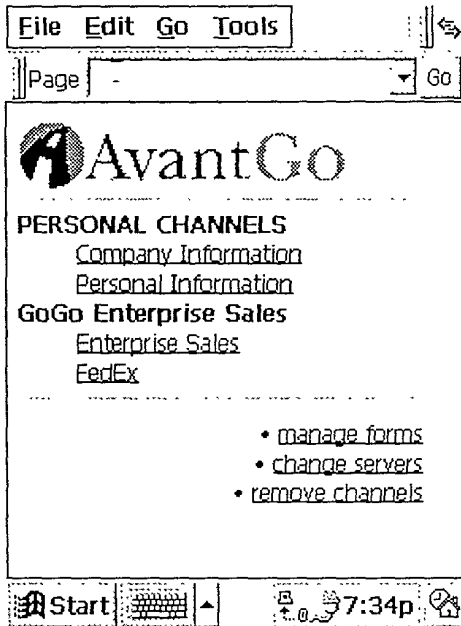


FIG. 27



AvantGo Enterprise

Username

Password

☐ Remember me

Login

[Download Client Software](#)
[View Client Guide](#)

Copyright ©1997-2000 AvantGo, Inc.
Version 3.4.152 NT



Contains encryption software from
RSA Data Security, Inc. Copyright ©
1999-2000 RSA Data Security, Inc.
All Rights Reserved.

FIG. 28

Menu

Content

Branding Strip

MODE: Administrator

AvantGoEnterprise

STATUS

USERS

GROUPS

SETTINGS

Help

Logout

TASKS

Find User

New User

List All Users

User Detail

To modify this user's user name, name, or password, edit the appropriate fields and click 'Save'. This user's personal channels and group memberships may also be edited.

User Name: Administrator

First Name:

Last Name:

Password:

Confirm Password:

Save

Delete...

Reset

Sub-menu

Special Links

Legend

FIG. 29

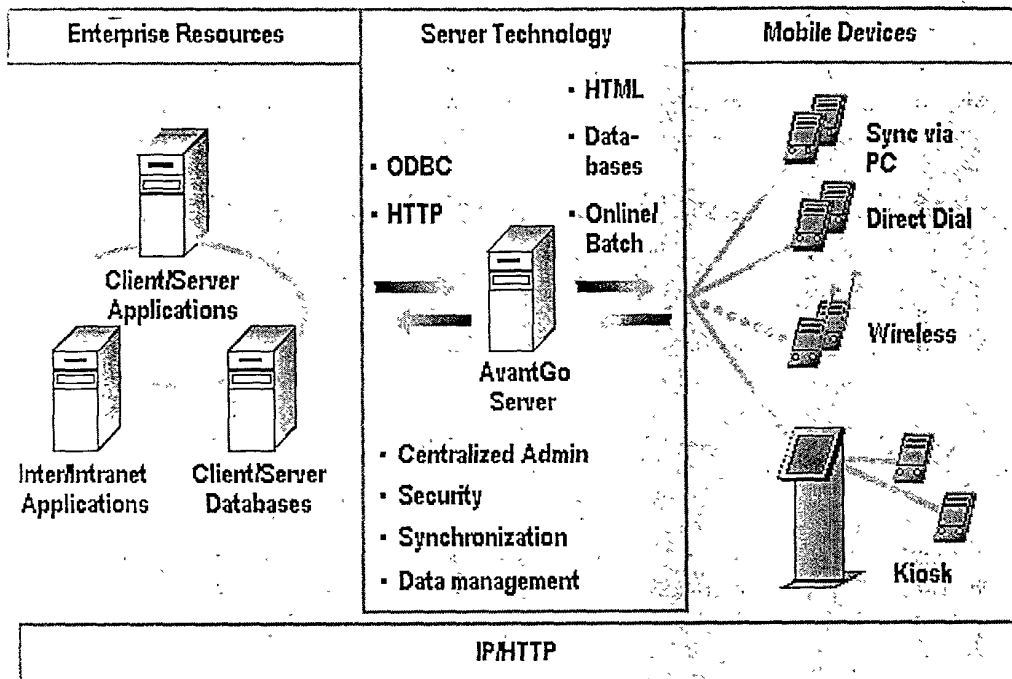


FIG. 30

FIG. 30" 23725360

Enter: Tutorial Click View to view/test the address of your channel.

Enter: http://
syncdemo.avantgo.com/
sfa_3_1/

New Channel for User MobileUser

Title:	Untitled	View
Location:	http://	
Channel Size Limit:	100	
Link Depth:	0	
Include Images:	<input type="checkbox"/>	
Follow Off-Site Links:	<input type="checkbox"/>	
Allow Binary Distribution	<input type="checkbox"/>	
Hide from Users	<input type="checkbox"/>	
Send URLs	<input type="checkbox"/>	
Refresh:	<input type="radio"/> only once <input checked="" type="radio"/> every sync <input type="radio"/> hourly every <input type="text" value="0"/> hour(s) <input type="checkbox"/> only <input type="radio"/> daily	
<div>12:00 AM PM</div> <div>on days:</div> <div><input checked="" type="checkbox"/> Monday <input checked="" type="checkbox"/> Tuesday <input checked="" type="checkbox"/> Wedn <input checked="" type="checkbox"/> Friday <input checked="" type="checkbox"/> Saturday <input checked="" type="checkbox"/> Sunda</div>		
<div>Create Reset Cancel</div>		

Enter: 100

Enter: 3

Leave these fields unchecked.

Click the only once option.

Click the Create button.

FIG. 31

Refresh:

- ☒ on every sync
- ☐ every hour(s)
- ☐ only once
- ☐ daily at : on the following days:
 - ☒ Monday ☒ Tuesday ☒ Wednesday ☒ Thursday
 - ☒ Friday ☒ Saturday ☒ Sunday

When finished, click the "Save Channel" button:

FIG. 32

Update User Membership for Group Travel Itinerary

Manage this group's user memberships by selecting/deselecting the user check boxes and clicking update. To view information about a particular user, click the hyperlink name of the user.

User Name:	<input type="text"/>
First Name:	<input type="text"/>
Last Name:	<input type="text"/>
<input type="button" value="Find User"/>	

Search Results

User Name	Name
<input type="checkbox"/> Joia	John Jack
<input checked="" type="checkbox"/> Natalie	Natalie Doe
<input type="checkbox"/> new	new test
<input type="button" value="Update"/> <input type="button" value="Reset"/> <input type="button" value="Return to Group"/>	

Edit server profileOKX

Server address

Hostname

Port

Your account

Username

Connection options

☒ Connect to this server.

☐ Refresh all content.

☒ Connect journal.

Start

5:11p

FIG. 34

FIG. 33

FIGURE 35

MODE: Administrator

Ver. 3.2 Build 72

STATUS

USERS

GROUPS

SETTINGS

Help

Logout

TASKS

Find User

New User

List All Users

AvantGoEnterprise

Ver. 3.2 Build 72

Modify Channels of Natalie

For more information or to modify or delete a specific channel, click on the title. To create a new personal channel, click the New Personal Channel link on the left.

Title	Total Size	Last Sync
Personal Channels		
Enterprise Intranet	0	Never Synced
Federal Express		
GoGo Enterprise Sales	7	Wed Oct 06, 1999 12:32:55
Enterprise Intranet for Sales	93	Wed Oct 06, 1999 12:32:55
FedEx	18	Wed Oct 06, 1999 12:32:55
Sales Force Automation Forms		
Travel Itinerary		
Total: 118KB		
Create New Personal Channel	Return to User	

Recent Sync History

The three most recent synchronizations are logged below. More information can be found in the [Complete Sync History](#)

[Wed Oct 06, 1999 12:32:44] (12 seconds)
HTTP/1.1 404 File not found(404) - http://localhost/device/brand/avantgo/images/device/CE_header.gif
[Wed Oct 06, 1999 12:32:34] (0 seconds)
Completely out of sync, resequencing...
[Wed Oct 06, 1999 12:31:35] (13 seconds)
HTTP/1.1 404 File not found(404) - http://localhost/device/brand/avantgo/images/device/CE_header.gif

Clear Channel Cache

Clear Cookies

Clear Authentication Info

During synchronization, the server updates existing channels and pages with modifications only. Clearing the channel cache will force all the channels and pages to be transferred to the device during the next synchronization.

Cookies containing profile information about you are placed in your user profile by the sites that you visit. Clearing the cookies database may remove personalized information stored on your device by the web servers that you visit. Clearing cookies will disable the "remember me" feature from the login prompt.

Some web servers require you to supply a user name and password to access the site. The server caches this authentication information and supplies it to the web server during synchronization. Clearing the authentication database will usually require you to reenter your user name and password the next time you visit a site that requires authentication.

FIG. 35

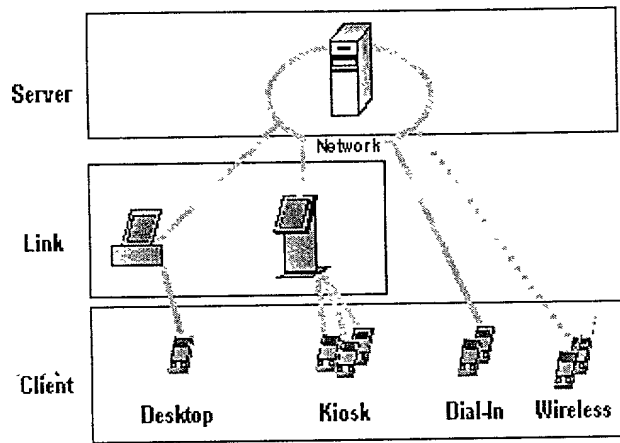


FIG. 3b

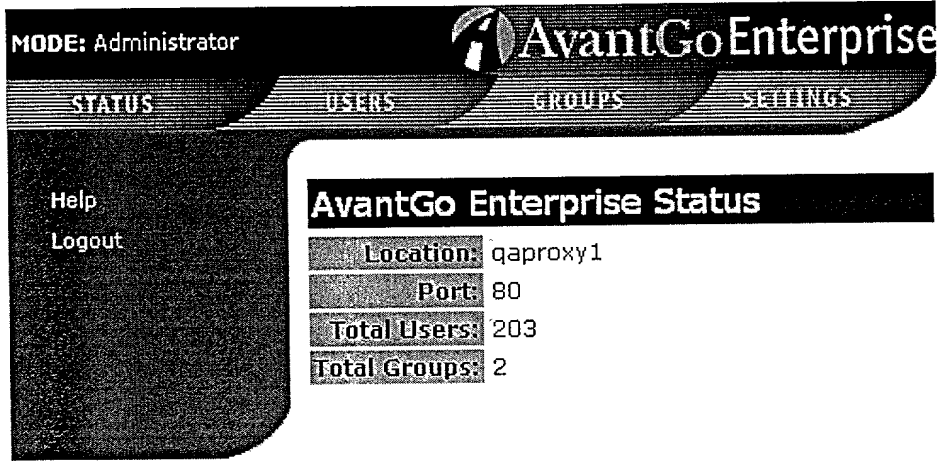


FIG. 37

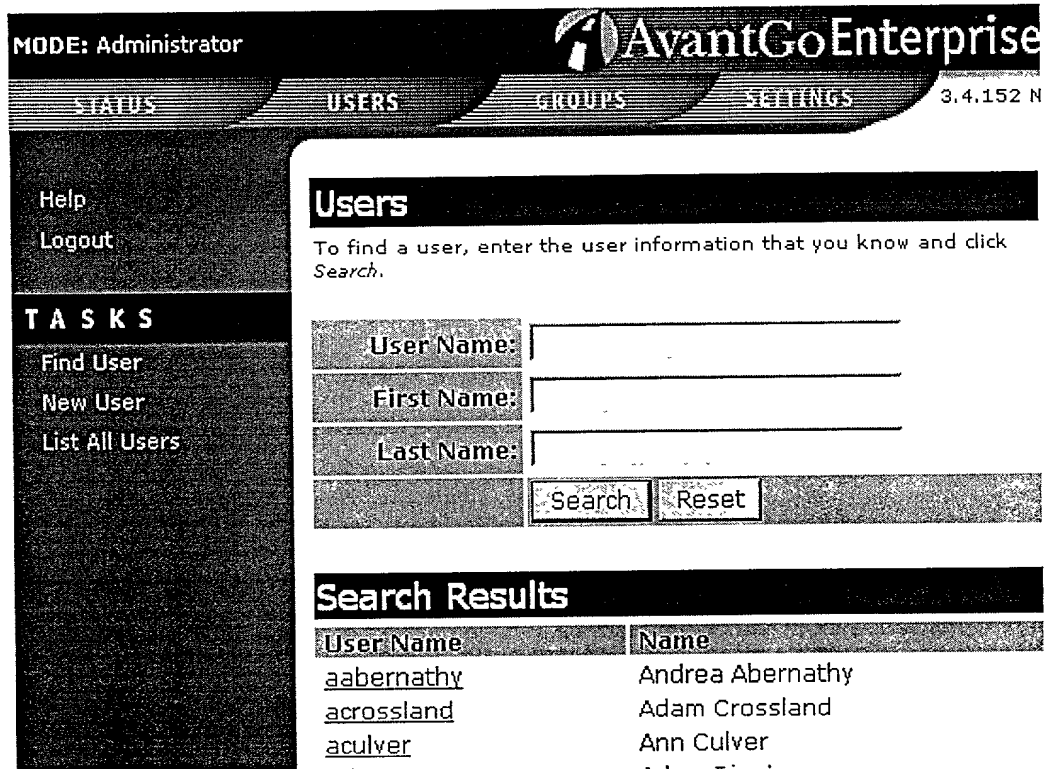


FIG. 38

MODE: Administrator

AvantGoEnterprise

STATUS

USERS

GROUPS

SETTINGS

3.4.152 NT

Help

Logout

TASKS

Find User

New User

List All Users

User Detail

To modify this user's user name, name, or password, edit the appropriate fields and click 'Save'. This user's personal channels and group memberships may also be edited.

Adam Crossland

User Name:	<input type="text" value="acrossland"/>
First Name:	<input type="text" value="Adam"/>
Last Name:	<input type="text" value="Crossland"/>
Password:	<input type="password"/>
Confirm Password:	<input type="password"/>
<input type="button" value="Save"/> <input type="button" value="Delete..."/> <input type="button" value="Reset"/>	

FIG. 39

T03230"2342550

STATUS

USERS

GROUPS

SETTINGS

3.4.152 NT

Help

Logout

TASKS

List All Groups

New Group

Modify Group test group 1

Modify this group's name and description by editing the fields and clicking Save. To manage this group's users or channels, click 'Add/Remove Users'. To create a channel for this group, click 'New Group Channel'. To edit this group's channel, click on its name.

Name:

test group 1

Description:

test

Save

Delete...

Reset

Group Members

User Name	Name
drice	David Rice
dylan	Dylan McDanniel
rafael	Rafael Weinstein
robert	Robert Otani

Add/Remove Users

Group Channels

FIG. 40

MODE: Administrator

AvantGoEnterprise

3.4.152 NT

STATUS

USERS

GROUPS

SETTINGS

Help

Logout

TASKS

List All Groups

New Group

Groups

Modify or view a group by clicking on its name.

Group Name	Description
asdf	
test group 1	test

FIG. 41

MODE: Administrator

AvantGo Enterprise

3.4.152 N

STATUS USERS GROUPS SETTINGS

Help
Logout

T A S K S

Change Admin Password
PalmOS Download
WinCE Download

Admin Settings

Old Password:

New Password:

Confirm New Password:

Save Reset

FIG. 42

FIG. 42

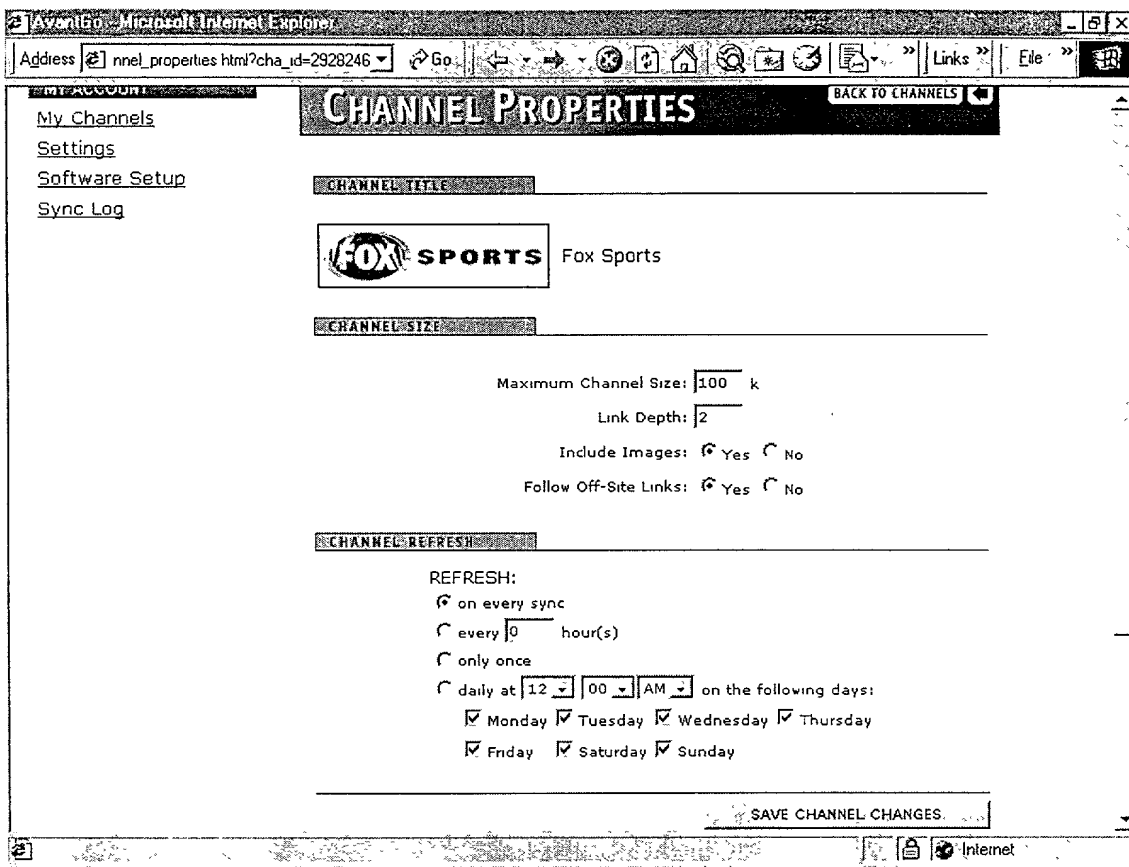


FIG. 43

AUTOCHANNEL™

[BACK TO CHANNELS](#) 

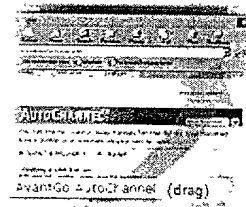
You can create AvantGo AutoChannels "on the fly" for your handheld from a button or a bookmark on your web browser.

INTERNET EXPLORER 4.0 OR HIGHER

Creating a Link Button

With your links toolbar visible, drag the AvantGo AutoChannel™ link below to the toolbar. Clicking on the button while browsing a website will let you add that website to your handheld device.

Drag this link: [AvantGo AutoChannel](#)



Creating a Bookmark

Right-click on AvantGo AutoChannel™ link below and select "Add to Favorites...". Choosing this in your favorites will let you add the website you are browsing as an AvantGo channel on your handheld.

Right-click this link: [AvantGo AutoChannel](#)

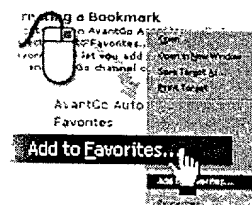


FIG. 44

AvanGo - Microsoft Internet Explorer

Address: https://avanigo.com/mydevice/creat Go

MY ACCOUNT

My Channels

Settings

Software Setup

Sync Log

AUTOCHANNEL (TM)

Take your favorite websites with you

You can create AvantGo AutoChannels on the fly for your handheld from a button or a bookmark on your web browser.

CREATE CHANNEL [BACK TO CHANNELS](#)

CHANNEL TITLE

Title: Untitled

Location (URL): http:// [View](#)

CHANNEL SIZE

Maximum Channel Size: 100 k

Link Depth: 0

Include Images: ☐ Yes ☒ No

Follow Off-Site Links: ☐ Yes ☒ No

CHANNEL REFRESH

REFRESH:

☒ on every sync

☐ every 2 hour(s)

☐ only once

☐ daily at 12:00 AM on the following days:

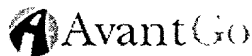
☒ Monday ☒ Tuesday ☒ Wednesday ☒ Thursday

☒ Friday ☒ Saturday ☒ Sunday

[SAVE CHANNEL](#)

FIG. 45

09242650



SEARCH CHANNELS

Look For: GO

CHANNEL CATEGORIES

new channels

[Business](#) [16]

[City/Regional](#) [11]

[Entertainment](#) [12]

[Lifestyle](#) [57]

[News](#) [24]

[SciTech](#) [1]

[Sports](#) [13]

[Travel](#) [41]

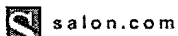
[Weather](#) [29]

[Wireless](#) [22]

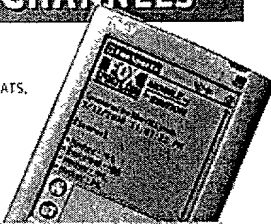
4604
FEATURED CHANNELS



UP-TO-THE-MINUTE SCORES, STATS, STORIES AND COMMENTARY.



A DISTINCTIVE VOICE ON NEWS, POLITICS AND OPINION.



COOL CHANNELS [AVANTGO STAFF FAVORITES]

[Autobytel](#)

4610 Buy your next car or keep up to date with your current car's maintenance - all from your handheld.

[Hollywood.com](#)

4612 Have movie listings for your zip code right at your fingertips.

[Restaurant Row](#)

4614 Find a great restaurant in your area and even make reservations wirelessly.

[MyDocsOnline](#)

4616 Sync your desktop documents to your handheld or wirelessly email them to friends or colleagues.

Welcome, dkoehn68

[Log out](#)

My Account EDIT

[Fox Sports](#)

[Hoover's IPO Update](#)

[The Wall Street Journal](#)

[The Weather Channel](#)

[Upside Today](#)

[Wired News](#)

[Yahoo!](#)

[CREATE CHANNEL](#)

FS6.46

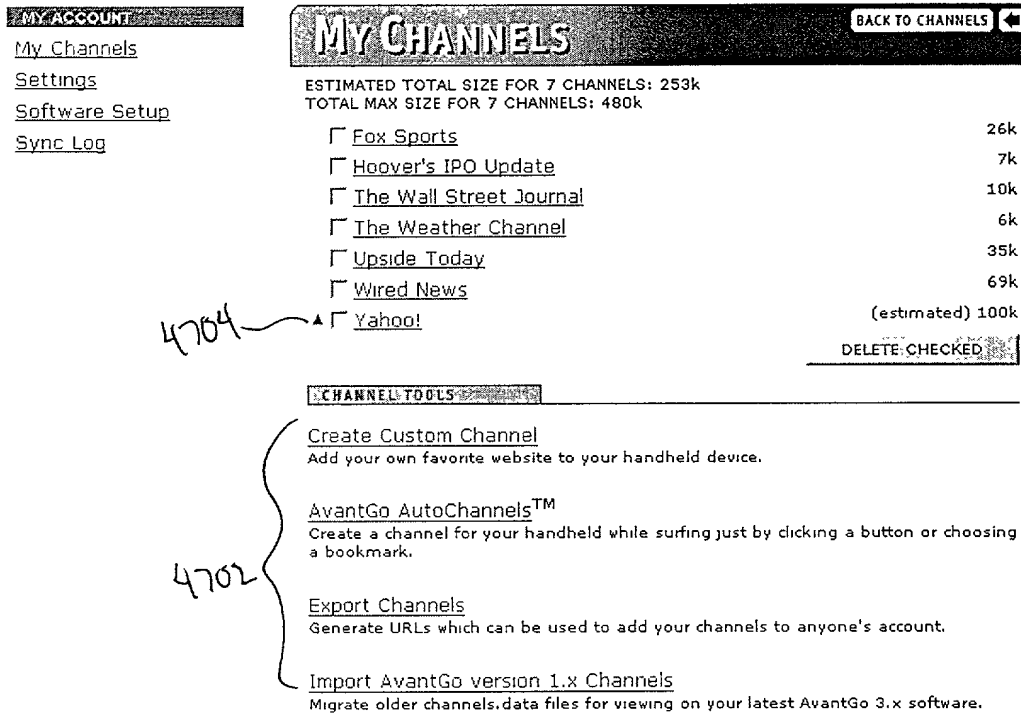


FIG. 17

- MY ACCOUNT
- My Channels
- Settings
- Software Setup
- Sync Log

ACCOUNT SETTINGS

BACK TO CHANNELS

CHANGE PASSWORD

You will be asked to update changes to your device from this website.
If you've forgotten your password, you can [request a password reset](#).

Old Password:

New password:

Confirm password:

Change password

CHANGE EMAIL ADDRESS

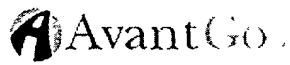
This is where password reset messages will be sent if you forget your username or password.

Password:

New email address: dkoehn@avantgo.cc

Submit

FIG. 48



Welcome, dkoehn68

[Log out](#)

MY ACCOUNT

[My Channels](#)

[Settings](#)

[Software Setup](#)

[Sync Log](#)

SOFTWARE SETUP

[BACK TO CHANNELS](#)

- ▶ [Download AvantGo Palm OS Client](#) (Windows)
- ▶ [Download AvantGo Windows\(R\) CE Client](#) (Windows)
- ▶ [Download AvantGo Connect™](#) (Macintosh)
- ▶ [Configure Mobile Application Link](#)

To check your AvantGo Client version:

Tap *Tools* > *About AvantGo* on CE

or

Menu > *Options* > *About AvantGo* on Palm Devices.

The About AvantGo panel appears. On the bottom left is your version number.

[Update](#)

FIG. 49

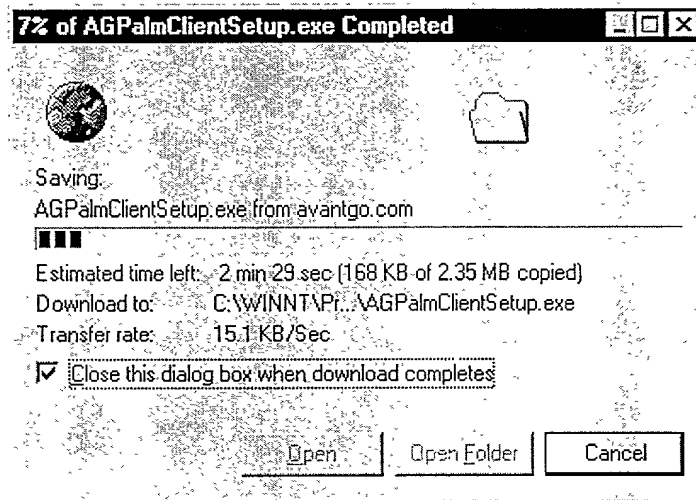


FIG. 50

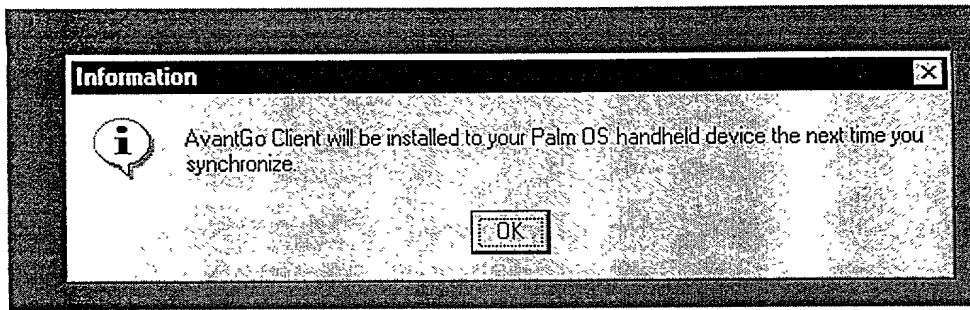
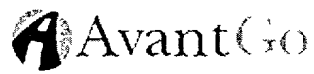


FIG. 51



SETUP CHECKLIST

DOWNLOAD

▶ INSTALL

SYNCHRONIZE

CREATE ACCOUNT

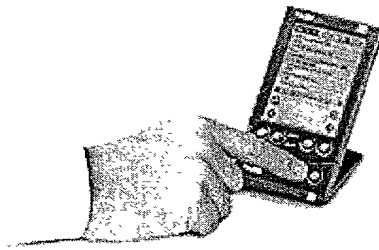
CONFIGURE

NEXT

SYNCHRONIZE

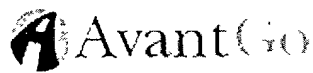
Place your device in its cradle and press the HotSync button.

When you synchronize, AvantGo 3.x will be installed on your device. After synchronization is complete, click the "Next" button at the bottom of the page.



NEXT >>

FIG. 52



SETUP CHECKLIST

- GET DOWNLOAD
- INSTALL
- GET SYNCHRONIZE
- ▶ CREATE ACCOUNT
- GET SINGLRE
- GET SYNCHRONIZE

USE EXISTING ACCOUNT?

Select below to use this account or to create a new one

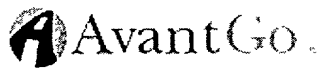
Username: **dkoehn68**

Email: **dkoehn@avantgo.com**

- ☒ Use this account
- ☐ Create a new account

NEXT >>

FIG. 53



SETUP CHECKLIST

DOWNLOAD

INSTALL

SYNCHRONIZE

UPDATE

► CONFIGURE

SYNCHRONIZE

CONFIGURE MOBILE LINK

Click the link below to configure Mobile Link™

By clicking below, you will ensure your AvantGo 3.x software is communicating properly with AvantGo's servers.

CLICK HERE
TO CONFIGURE

5402

NEXT >>

FIG. 54

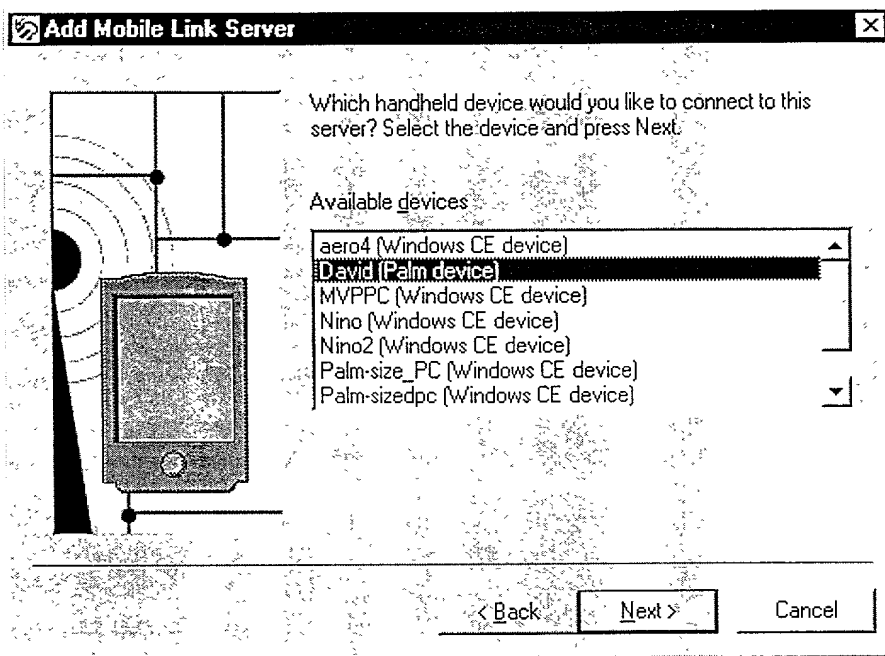


FIG. 55

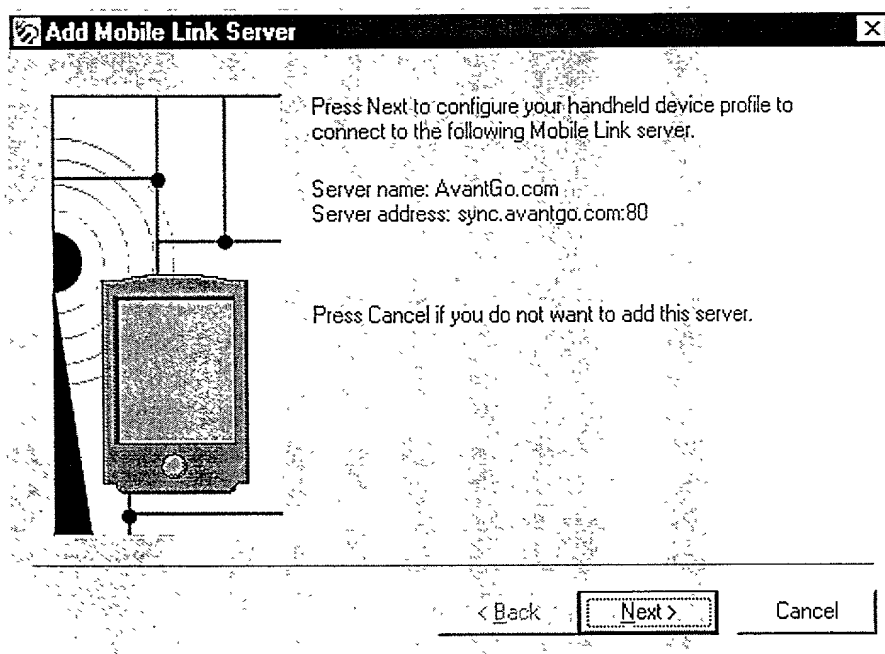


FIG. 56

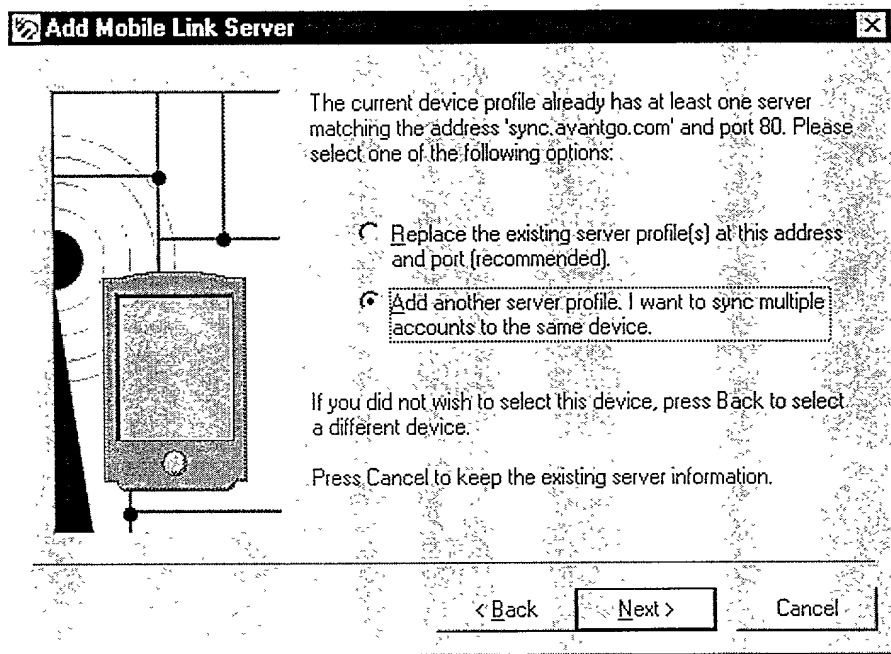


FIG. 57

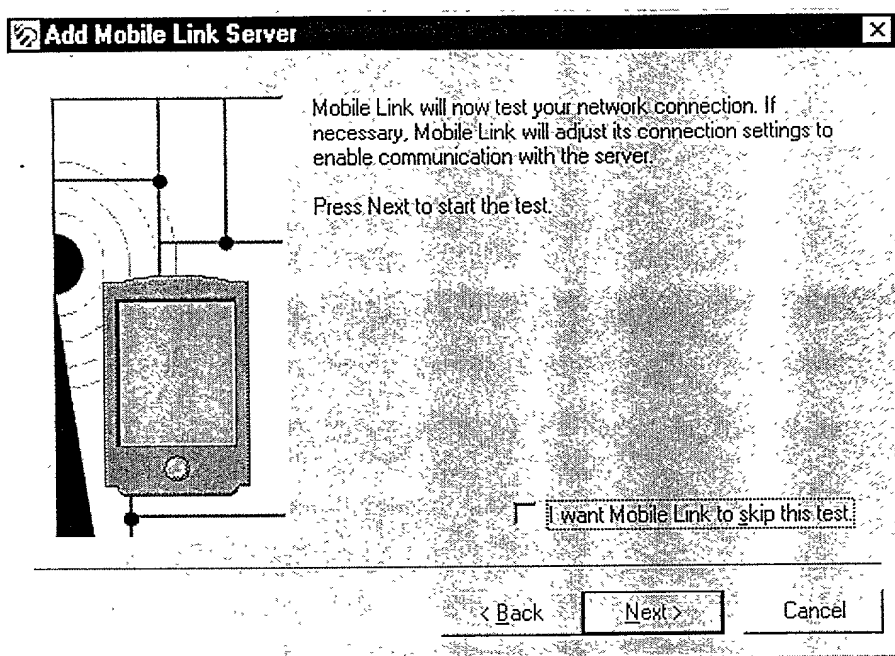


FIG. 58

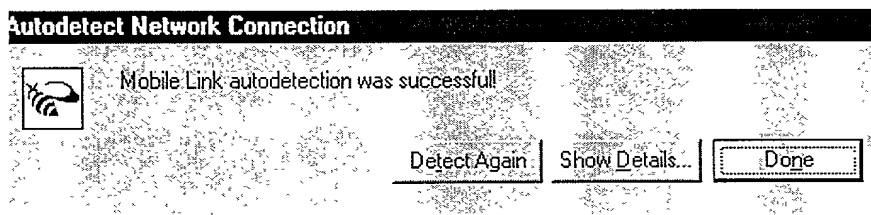


FIG. 59

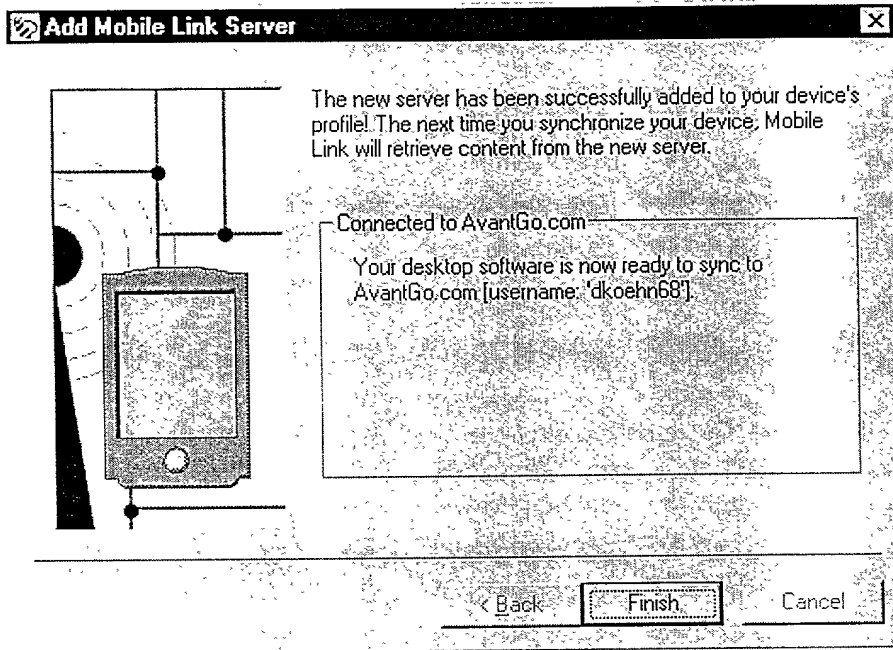
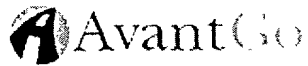


FIG. 60



SETUP CHECKLIST

1. GET A PHONE

2. GET A SIM CARD

3. GET A PHONE NUMBER

4. CREATE AN ACCOUNT

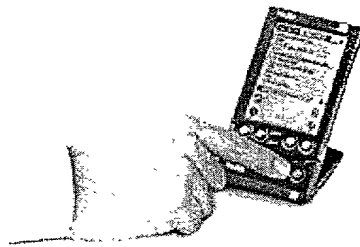
5. DOWNLOAD SOFTWARE

▶ SYNCHRONIZE

SYNCHRONIZE

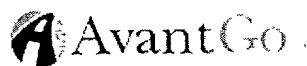
Place your device in its cradle and press the HotSync button

When you synchronize, your AvantGo 3.x software will connect to the Avantgo servers for the first time. After synchronization is complete, click the "Next" button at the bottom of the page.



NEXT >>

FIG. 61



SETUP CHECKLIST

- ✓ 1. DOWNLOAD
- ✓ 2. INSTALL
- ✓ 3. SYNCHRONIZE
- ✓ 4. CREATE ACCOUNT
- ✓ 5. VIEW CHANNELS
- ✓ 6. SYNCHRONIZE

CONGRATULATIONS!

You are now an AvantGo user

Pick up your device, click on the "applications" button and select AvantGo to begin navigating channels. Use the links below to begin navigating AvantGo.

CHANNELS

Choose from 1000s of exciting channels from leading providers

ACCOUNT

View and edit your personalized account settings

FINISH >>

FIG. 62

6302

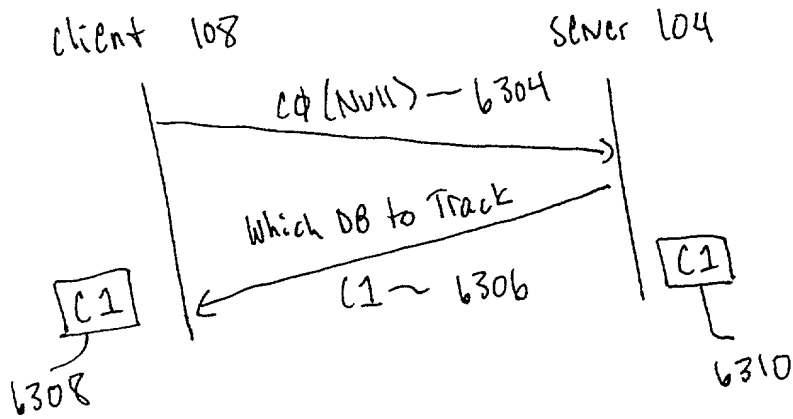


FIG. 63A

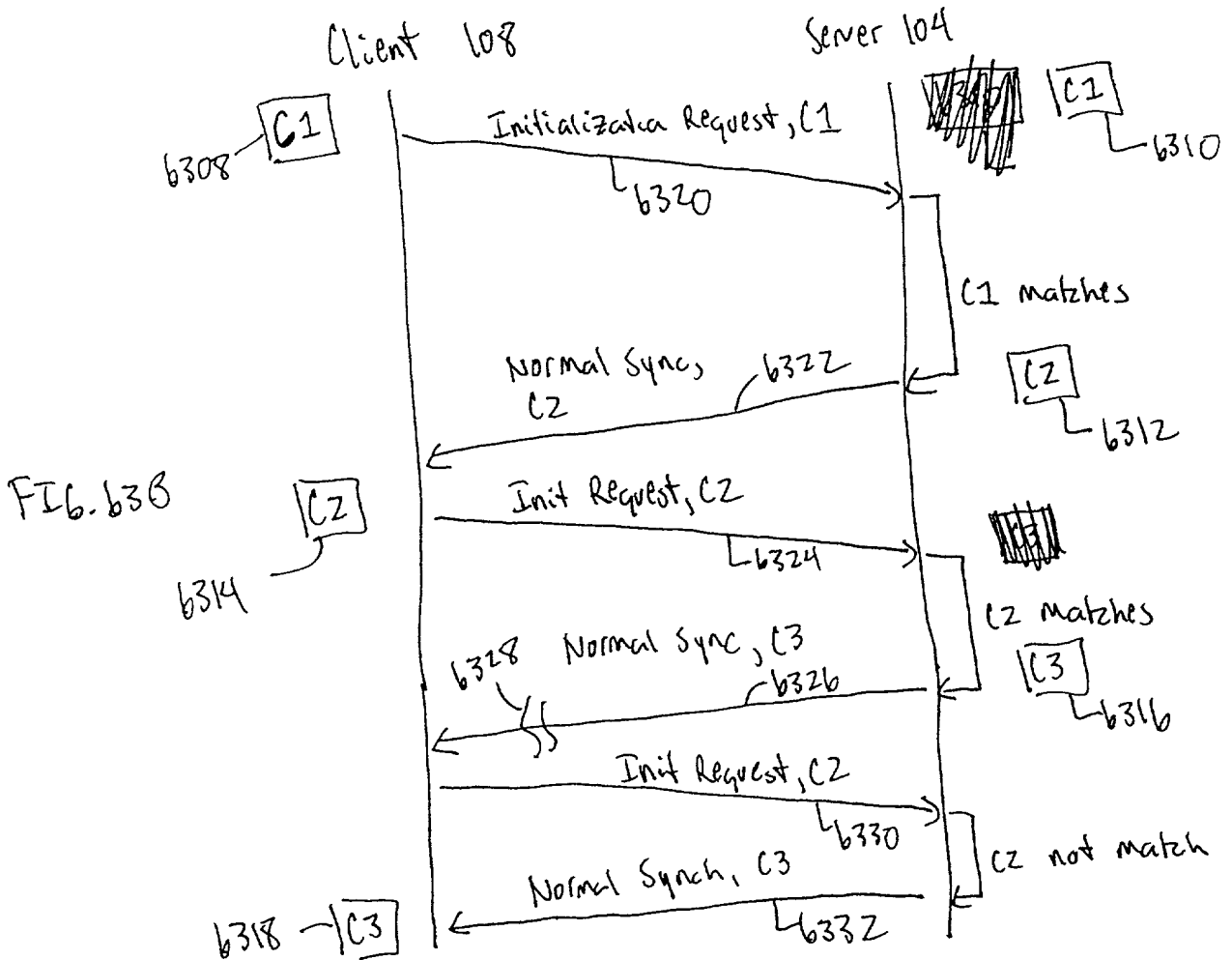


FIG. 63B